

THE QUARTERLY OF THE
DEPARTMENT OF ANTIQUITIES
IN PALESTINE

VOL. XIV

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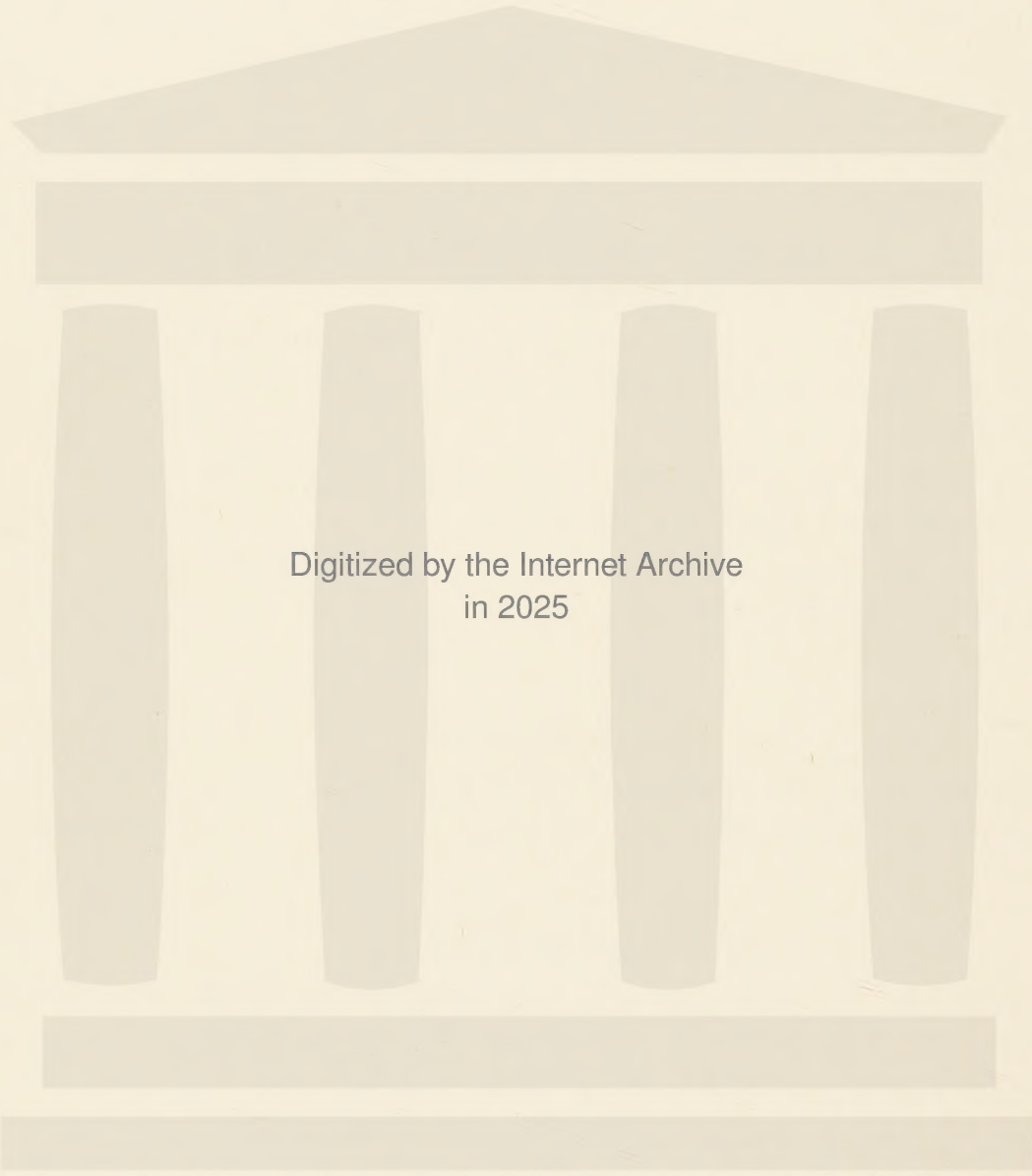
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A MIDDLE BRONZE-AGE TEMPLE AT NAHARIYA

NAHARIYA, a settlement of German Jews, founded some twelve years ago, is situated on the sea-coast, 8 km. north of Acre (Fig. 1). The settlement extends along the banks of the small river Ja'athūn, which discharges its waters into the Mediterranean, and it is confined on the east by the main road leading from Acre to ez-Zib; consequently it develops along the sea-shore, mainly in a northward direction, in an area of sand-dunes sparsely covered with wild tamarisks. A peculiar feature of the region is a series of small natural hills formed by an outcrop of conglomerate rock (*kurkar*) covered

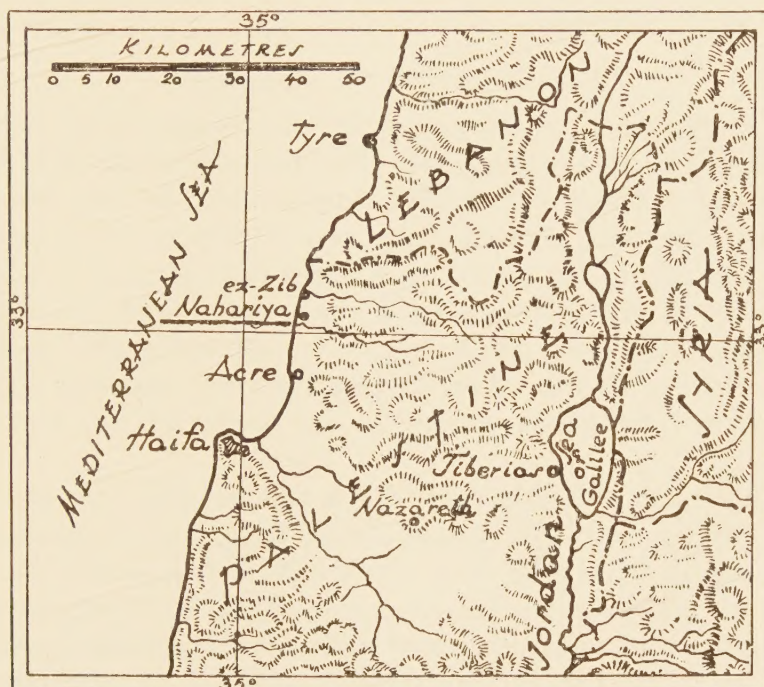


FIG. 1

with blown sand and overgrown with shrubs. Amongst these hills one somewhat larger than the rest, situated about 100 m. from the sea, and too insignificant to have a name of its own, attracted some attention for the first time in 1942, when a macadamized road being built along the sea-shore cut through its western edge and exposed a layer of occupation debris with quantities of black ashes and pottery sherds (Pl. I, 1). The fact was brought to the attention of the Department of Antiquities and the site was immediately visited by the Inspector, Mr. N. Makhoul. No walls could be seen on the surface, but an oblong dip on the summit suggested the existence of some building remains. The sherds collected were of Middle Bronze II date. The site was subsequently registered under the Antiquities Law.

During the ensuing years the place became a mine of small finds by passers-by, or by children of the settlement, who used to scratch away debris from the cutting and to be rewarded by finding fragments of incense burners, small juglets, beads, and even pottery

doves. Some of these objects and fragments eventually found their way into the Palestine Archaeological Museum, while others were distributed between the local museum of Nahariya and certain private collections.

These accidental finds, however small, show nevertheless a cross-section of the objects subsequently found during the excavation described in this report; they are grouped on Pl. XI, 17-26.

It was not until the owner of the site, Mr. Paul Loewy of Nahariya, submitted an application for a building permit that it seemed necessary to undertake an excavation. The Department then decided to investigate the site and the writer was placed in charge of the work. Both Mr. Loewy and the Local Council of Nahariya kindly agreed to contribute a share in the expenses.

The Progress of the Excavation

The excavation started on 13 April and ended on 20 May 1947, with an average of twenty local workers employed throughout. Dr. Mayer-Wolf, the Mukhtar of Nahariya, his sons, and Mr. Arye Isaac volunteered their services for the whole period of the excavation; they worked with enthusiasm in the clearance of the most delicate areas, notably Locus B, which they excavated completely with brush and knife.

It is a great pleasure to place on record the expert help of Mr. P. Dikaïos, Curator of the Cyprus Museum, who came for a short visit and eventually stayed for ten days. Mr. Dikaïos took charge of a special sector, and his great experience in the methods of prehistoric excavation contributed greatly to the results of the excavation and their interpretation.

Mr. N. Makhoully came regularly every week-end and ably managed the administrative and financial affairs. Awni Eff. Dajani, lately appointed Inspector, stayed for most of the time and, besides having his first experience of field-work, was very helpful in supervising the work and keeping the inventory. Mrs. A. Hamburger took charge of the registration of the finds and made the scale drawings of the pottery and objects. The photographs were taken by the photographers of the Department, Mr. J. Schweig and Mr. D. Abdo, and some by Mr. Hanan Wolf. The planning and surveying was done by Subhi Eff. Muhtadi.

I should like to thank the visitors to the excavation with whom I had the pleasure of discussing various problems and from whose remarks I greatly benefited. In particular I should like to record the visits of Père R. de Vaux, Prof. L. Picard, Dr. B. Maisler and his students, and Mr. N. Avigad, as well as the Acting Director, Mr. C. N. Johns, and other members of the Department.

The population of Nahariya showed great interest in the dig and helped in various ways. The Local Council placed at my disposal a special room for storing the antiquities, the Workers' Association supplied working-tools, neighbours lent wheel-barrows and small instruments. Mr. Feldheim undertook part of the surveying, and schoolboys spent many hours on the dig brushing walls. My thanks are due to all of them.

The Tell rises some 3 m. only above the surrounding sands, and measures about 40 m. across (Fig. 2). The original slope was rather steep on the north side and fell more

A MIDDLE BRONZE-AGE TEMPLE AT NAHARIYA

gently to the south. This may be explained by the fact that the prevailing wind blows from the south and south-west. The southern and eastern slopes of the *tell* were strewn with quantities of Roman-Byzantine sherds, mostly worn to such a degree that the ribbing was practically polished away. Curiously enough, there is no trace of any building of this period either on the *tell* itself, or in its immediate neighbourhood. The summit and the northern and western slopes had very few surface sherds.

The excavation opened with a trench, 4 m. wide, cut at right angles to the existing road and joining the latter at a point where most of the casual finds had been reported.

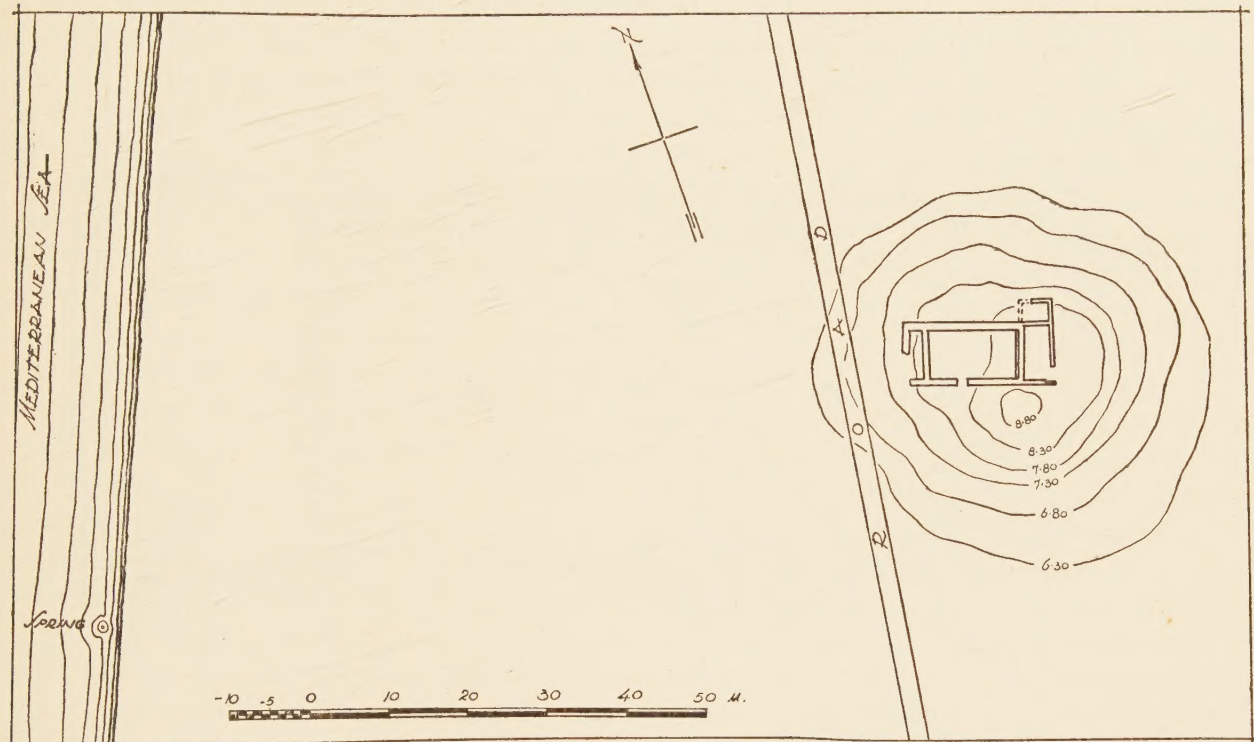


FIG. 2. Site plan

The surface sand to a depth of 40 cm. contained practically no sherds other than Middle Bronze II: rail-rims and small flat bases of jars, characteristic jar handles, fragments of slightly in-curved bowl rims and disk bases. Below this upper layer, which consisted mainly of blown sand, began a true occupation-level of black debris, mixed with innumerable sherds of various vessels, all without exception dating to the Middle Bronze II period.

On the second day of the excavation the trench struck a stone wall; as this happened to run parallel to the trench, the latter had only to be slightly shifted to expose both faces of the wall, which was almost 1 m. wide.

In the following days the whole circuit of the walls was traced, while a number of trenches were cut against them at selected parts to obtain cross-sections through the adjoining accumulations. In this way a complete stratification of the site was obtained to which the various building phases could be related. It was established that no other building had ever existed on the *tell*.

The Building

The building (cf. Plan, Fig. 3, and Pl. I, 2) is orientated roughly east to west, with its narrow side to the sea. It consists of a main room (Room I), an additional room (Room IA) at the west, a second additional room (Room II) at the east, and two small rooms (III and IV) to the north of the latter. The whole thus forms in the main a compact rectangular structure of solid appearance and simple plan, although the single parts belong, as we shall see, to different phases of construction.

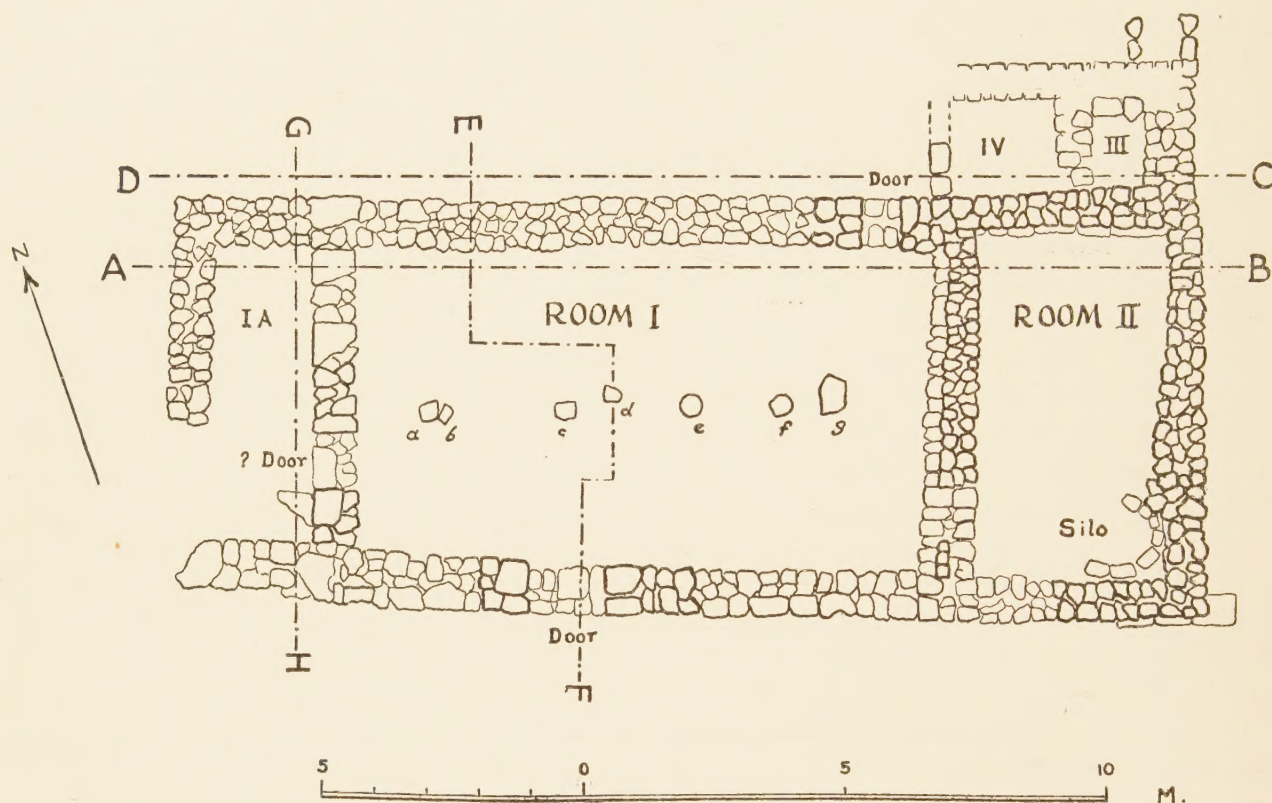


FIG. 3. Plan of building: a-g column bases
a—Level V, b—Level VI, c—Level V, d—Level III, e—Level VII, f—Level VI, g—Level III

Room I

This is not only the centre of the building in plan, but also the oldest part of the whole structure. It is a rectangular room 12.80 m. long and 8.00 m. wide (outside measurements); the inside measurements being 10.70 m. long and 6.20 m. wide. In the building of the room two main phases of construction can be clearly distinguished. To the first phase belongs the lower part of the walls, 1.15 m. high at the north, and 0.80 m. high at the south. The width of the walls of the first phase is 0.75 m. The upper or second phase is distinguished by a thicker wall, c. 1.00 m. wide, laid directly above the lower. The transition between the two phases is formed by a projection, of about 10–15 cm., depending on the size of the stones; this projection may be clearly seen, especially

in the north wall, both inside (cf. Pl. II, 3) and outside (cf. Pl. III, 1), in the south wall to the left of the doorway (Pl. III, 2), and in the east wall; in the west wall only the lower phase is preserved.

The north wall. The masonry of phase I is very solid in appearance (cf. elevation, Fig. 4). It consists of unhewn or roughly worked sandstone boulders. Many stones are flat, having so split naturally in the quarry. These flat stones have enabled the builders to build roughly in courses, but no more regularly or consistently than the varying thickness of the slabs allowed. For whenever a thicker or thinner stone came to hand, the course was abandoned. The interstices between the boulders are filled with small irregular stones, placed in any direction. There is a tendency to concentrate the better stones near the corners; the northern wall thus progressively deteriorates towards the east. The actual corner-stones are angular and chosen with greater care (Pl. VI, 6). The quality of the material is not at all homogeneous. We find on the one hand stones of softer quality and brittle composition in which the sandy conglomerate is easily discernible; and on the other, hard stones of crystalline material which easily resist the pickaxe. All without exception are of local sandstone and could have been quarried either on the spot from the rocks along the sea-shore, or, more probably, since these rocks on the shore are softer and of inferior quality, from one or other of the nearby hills, where the rock is undoubtedly harder than near the coast.

The stones seem to have been laid in a mortar composed of black mud and sand, the latter serving as a *dégraissant* instead of straw. The mud could have been brought from the marshes which abound in the neighbourhood. The quality of this mud-and-sand mortar is fairly good; it is plastic when wet and rather hard and firm when dry.

The masonry of the second phase is on the whole similar to that of the first. While less attention is paid to the corner-stones, the quality of the masonry is more uniform, and larger and higher stones occur more frequently. A characteristic feature of this phase is the alternation of high and low courses, noticeable mainly near the north-west corner, but by no means regular elsewhere. Especially worth mentioning is a layer of regularly laid flat stones in the north wall at the bottom of the second-phase structure; the object of this may have been to level up the top of phase I and give a firm foundation for the masonry of phase II.

The relation of the two phases to each other may best be seen in the construction of the main door in the south wall, which was built during the first phase and rebuilt on the same spot during the second. The photograph (Pl. III, 2) clearly shows below the sill the sides of the earlier doorway 0.92 m. wide, with coarsely constructed jambs. The door-sill is formed by a few rubble stones and by a layer of mud.¹ This door was in use throughout the occupation of phase I. During phase II the doorway was enlarged in conjunction with the thickening of the walls. It then attained a width of 1.20 m. The jambs are carefully constructed and the threshold is made of large blocks laid out as a more or less horizontal platform. Curiously enough, the threshold is wider than the actual wall, the excess being accounted for by a row of boulders projecting on the outside

¹ Cf. W. F. Albright, *The Excavation of Tell Beit Mirsim*, Vol. II, p. 21, for a 'threshold consisting of stones in a matrix of *tîn*' from period G.

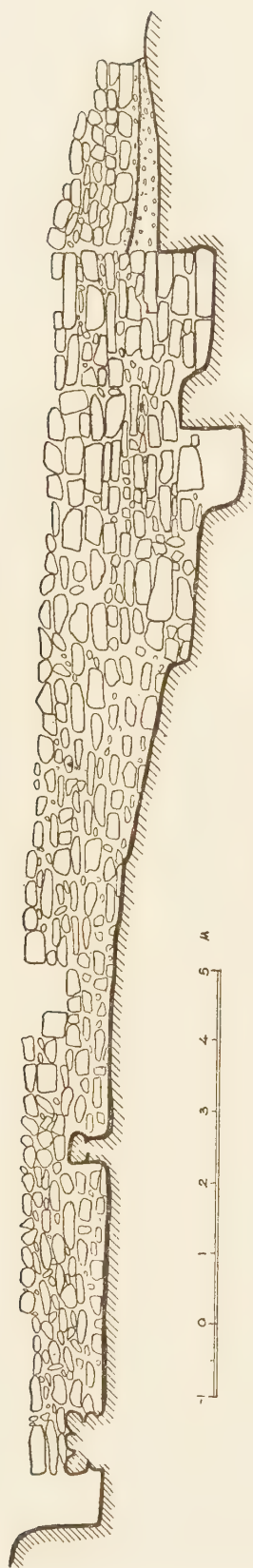


FIG. 4. Elevation C-D, looking south

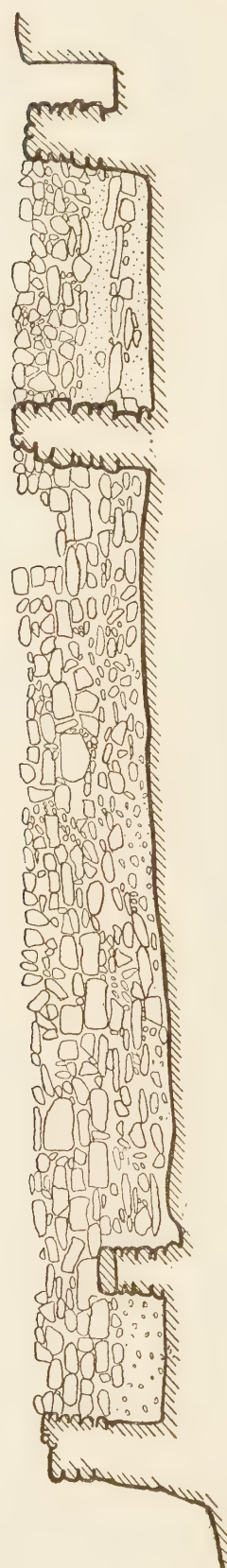


FIG. 5. Section A-B, looking north

beyond the line of the wall. This row of stones is some 15 cm. higher than the rest of the threshold; and since the latter was made up to this height by a layer of small stones and hardened clay, it may be assumed that we have here a third phase in which the threshold was heightened by a few centimetres and the row of stones added to its width.

No trace of any door-socket exists, and in view of the rustic appearance of the whole structure we could hardly expect a proper door on hinges. It is more likely that the doorway stood open, or was at the most covered by a mat or carpet hanging from a horizontal wooden lintel.

As for the position of the door in relation to the room, it may be noted from the plan that it is by no means central, but is situated at a point one-third from the western corner.

Another narrower and still less centrally placed door is in the northern wall, very close to the north-east corner of the room (Pl. IV, 1, foreground). This door, which is 0.70 m. wide, has two well-built jambs and a very distinct threshold. It belongs wholly to phase II, since its threshold is above the dividing line of the two phases. The door was found blocked by stones. The blocking seems to have been intentional, perhaps connected with some later rebuilding at a time when the accumulation of debris outside the building had reached a level well above the threshold. This supposition seems to be substantiated by the fact that two large storage jars were found lying against the upright face of the wall (Pl. VI, 5) near the threshold but at a higher level. The jars were too fragile to be removed, but were allowed to lie in their entirety as they had been left at some period after the door had gone out of use.

The size of the door and its position suggest that it was merely a secondary entrance, the main entrance being the door in the southern wall described above.

In the eastern half of the room the dividing line between the two building phases is less clearly distinguishable than in the western half. It may, however, still be detected here and there, from the overhang of the upper wall, or from the flat stones forming its foundation course. The latter detail forms a particularly reliable guide on the inside of the eastern wall, where there is little overhang, but a number of flat stones project slightly beyond the face of the wall belonging to the first phase.

The east wall. The first phase of this wall is extremely well built and consists of large blocks of more or less regular form. This is particularly noticeable on the outside face where the masonry presents the most solid appearance of the whole building (Pl. II, 1), and merits a more detailed description.

The lowest course is built of roughly rectangular blocks of unusually large dimensions, varying between 50 and 70 cm. in length and 25 and 30 cm. in height. Two blocks even reach the height of 50 and 53 cm. respectively, and occupy the space of two courses. One of these blocks, at the western end of the wall, is placed in an unusual oblique position.

Below the foundation course was a thin layer of black clay representing the mud-mortar into which the stones were set. The second course is of smaller and less regular blocks.

Above, the second phase is represented by two courses at the southern end; while at the northern end the wall consists of small irregular boulders, not laid in courses. The masonry of this phase is distinguished from that of the first by the usual projection visible

over about three-fourths of the entire length of the wall. In the northern sector, where, as we have seen, the masonry deteriorates, no clear distinction between the phases can be observed.

The topmost portion of the wall, which is much narrower than the rest and of much inferior masonry (Pl. II, 2), belongs to a still later phase and will be treated in conjunction with the description of the adjoining Room II.

The south wall of Room I is in general of poorer masonry than the north. Perhaps being nearer the centre of the hill, and not, like the north wall, overhanging a slope, a less solid structure was considered adequate. As in the north wall, the distinction between phases I and II is much clearer in the western sector of the wall than in the east, especially on the inside of the room; the outer face shows the division clearly even in the eastern sector. The main distinctive feature in the masonry of the second phase is the size of the stones, which are larger than in the first. As elsewhere, the upper wall clearly projects beyond the face of the lower.

A peculiar architectural detail was noticed on the inside of the south wall, east of the door: flat slabs were laid against the face of the wall of the first phase, for a stretch of about 2 m.¹ These slabs, which covered one course only, and had no support whatsoever, fell down after having been cleared. They were clearly the work of the builders of phase II who, as we know, erected broader walls and for some reason thought it necessary at this particular point to widen a portion of the lower wall.

The foundations of the south wall are at a level 0.70 m. higher than the foundations of the north wall, conforming doubtless to the original slope. The west wall likewise is founded deeper than the east, the original slope of the *tell* being here westwards.

The west wall of Room I is preserved to a lesser height than the others. All the surviving courses belong to the first phase, except the topmost course in the northern half, which, to judge from a few stones of very large dimensions which project into the room beyond the face of the wall, may have been added during the second phase.

In the southern part of the wall the masonry shows two vertical dividing lines strongly suggesting the existence of a door which was blocked at some later period (Pl. III, 3). The existence of this door, however, is by no means certain. It could be argued that the masonry between the two dividing lines is much too regular for a later blocking, that the courses of the 'blocking' correspond too well to the courses of the remaining portions of the wall and that one would expect some kind of a threshold, which in fact is nowhere visible. The last objection, which is *prima facie* the strongest, could be disposed of on the assumption that the room originally formed an open enclosure which would not necessarily have required a threshold. Conceivably then, at some later period, but still within phase I, when the enclosure was converted into a roofed room, the entrance was blocked and special care was taken to maintain the appearance of the face of the masonry. This was achieved by adjusting the stones of the blocking to conform to the courses of the rest of the wall. But here as elsewhere attention was paid mainly to the outside face, where alone the coursing is clear.

Additional proof of the existence of an original door at this point is provided by two

¹ Cf. the photograph on Pl. III, 2, where one of those flat stones is visible (near the top of the metre-rod).

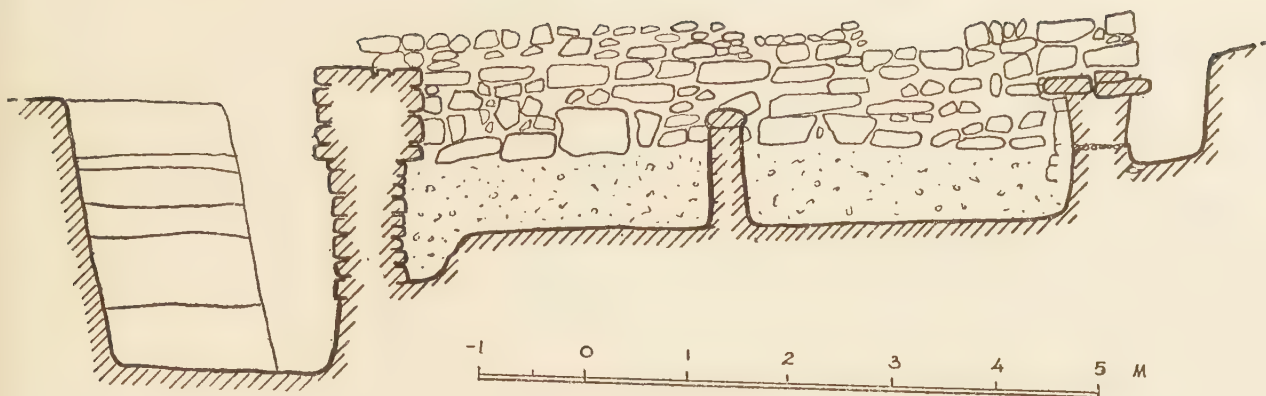


FIG. 6. Section E-F, looking east

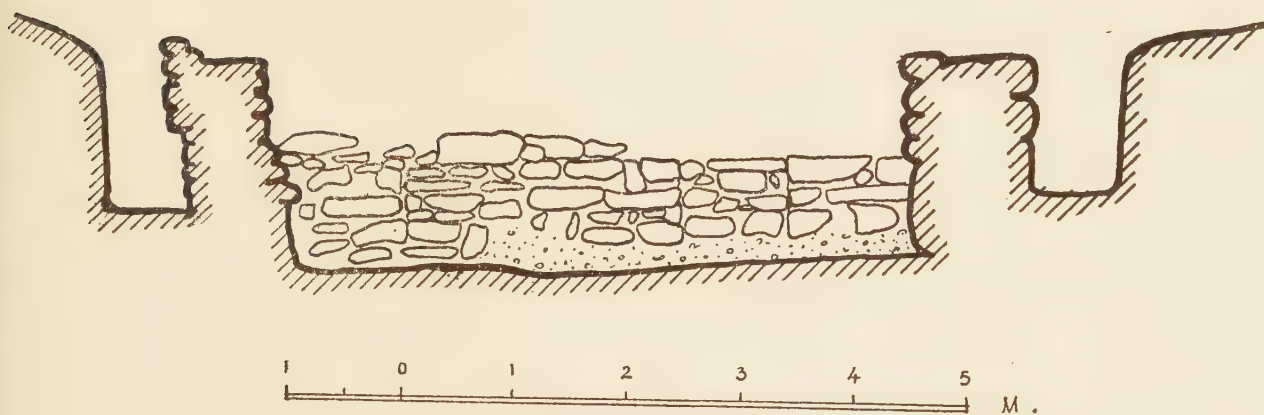


FIG. 7. Section G-H, looking east

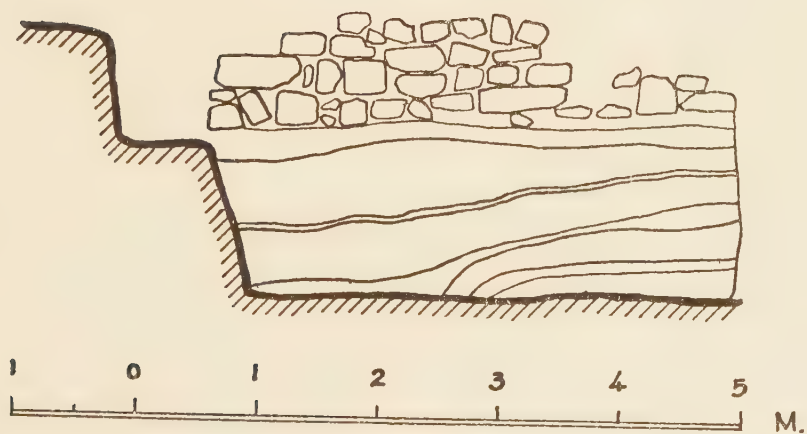


FIG. 8. North part of elevation of west wall of Room I A, from outside

long stones laid across the width of the wall from face to face, forming a good jamb for the supposed doorway. A similar long stone is seen at the right (western) edge of the south door.

In the lowest course, just to the south of the 'door', a large block projects 57 cm. beyond the outer face of the wall. Since the adjoining stone in the same course also projects some 20 cm., it may be surmised that the lowest course was meant to be covered. Similarly, at the northern end of the wall, some of the stones in the lowest course project 15-20 cm. beyond the face.

The Interior of Room I

The lowest level in the interior of the room consisted of *kurkar*, or sand conglomerate hardened through age and under the influence of atmospheric conditions to a rocky substance, which had to be removed piece by piece with the pickaxe. This lowest level was by no means sterile; on the contrary, it yielded the bulk of the small finds. Practically all the beads came from here, the silver figurine of Ashtoreth and various bronze fragments, among them a heavily corroded bronze figurine. In striking contrast to the upper layers, the *kurkar* level was remarkably clean, and except for a few patches exhibited none of that peculiar, dirty brown debris which invariably marks an occupation layer. In this clean, light yellow *kurkar* were embedded, over the whole area of the room, fragments of pottery which had literally to be chiselled out from the surrounding hard matrix. The presence of pottery fragments and of small objects in otherwise clean sand, free from traces of occupation, can perhaps again be explained by assuming that, in the earliest stage of all, the building was not so much a permanent abode as a small roofless enclosure, to which people came from time to time. The scattered pottery fragments and the objects are certainly evidence of such occasional visits; short visits, necessarily, since they left no other appreciable traces in the clean sand. Near the north-east corner, however, were two small patches, about 1 m. square each, of black occupation debris with fragments of charred remains and sherds; they were 45 cm. below the lowest floor.

During that 'open enclosure' period access was perhaps from the west, through the door described above; but when it was later decided to convert the enclosure into a room, access from the wind-ridden western side was blocked, and a door was made in the southern side of the room.

However this may be, the fact remains that the lowest level within the room contained a quantity of pottery and objects below the layers of actual occupation; these, as we shall see later, formed a close succession throughout the whole depth of the filling. The pottery consisted mainly of fragments of incense burners with round openings and small model offering-pots, one of which was found at a level below the foundation course of the north wall (No. 255), while two others, including one with pierced bottom, were lying near the south wall, at distances of 30 and 80 cm. from it. Besides these there were sherds of the usual Middle Bronze II types, and, still embedded in the *kurkar*, scattered bones of domestic animals (Pl. V, 2).

The interior of the room above this lowest level was filled with occupation debris of brownish to black earth; the consistency and colour of this were quite different from the

sand-blown accumulations found, for example, outside and to the south of the building. Such dark debris could have been produced only by a continuous occupation of the building during a period in which there accumulated the remains of food, charred wood from fires, and decomposed organic matter. Although there were differences in colour as well as in consistency, dark earth giving place occasionally to lighter, pockets of more or less clean sand interchanging with patches of black or grey ashes, and pottery fragments varying considerably in frequency, nevertheless the picture remained on the whole the same from top to bottom.

But in this apparently amorphous mass, over 2 m. thick, guide lines or levels soon appeared by which the accumulation of debris could be disentangled and followed step by step. These guide levels consisted of a succession of harder layers, which could be detected by gently peeling off the overlying softer debris with a builder's trowel or a mason's hammer. Sometimes these layers, or parts of them, reached the hardness of beaten mud, and could be scraped clean and brushed over in certain areas. In places the floors were clearly indicated by groups of sherds spread out horizontally, as they had scattered when the vessel fell and broke. In some instances, as in Level VI, objects found *in situ* gave additional clear evidence of the presence of a floor-level. The debris between the floors was a mixture of clay, mud, sand, and stones. Some pottery fragments were found among the debris, but on the whole they were less abundant than on the actual floor-levels. If we add the frequent layers of ashes, which, as in Level V, showed clear remains of a hearth, and elsewhere were spread out over considerable areas, we shall have a general picture of the succession of the occupation floors within the main room.

The room was too wide to be roofed over in a single span, and several stones found in the long axis (Pl. II, 2) were clearly bases for wooden poles to carry the roof structure.¹ These bases, as will be seen below, belonged to various periods of occupation.

Floor VII. This floor, which was the lowest, consisted mainly of large patches of ashes and of a layer of dark mud, about 4 cm. thick, which formed a very clear contrast with the underlying light-yellow sand and *kurkar*. Approximately in the centre of the room and at a distance of about 2 m. from the north wall there were found several fragments of an incense burner with a handle and rectangular openings. The fragments lay all on one level and close to each other, as if smashed on this very spot (Pl. VI, 4). Just above the floor near the south wall lay a bronze adze. From its position quite close to the masonry (Pl. V, 1), one could infer that it was left behind by the builders.

In the long axis of the room there was found standing upright a roughly worked stone in the form of a truncated cone (Pl. II, 2 left and *e* on Plan, Fig. 3). The stone had evidently served as a base for one of the wooden pillars which supported the roof, since other such stones of varying shapes were found in the higher levels. Each level probably had two or three such pillar bases, though not all of them remained *in situ*. Whatever their level, all of these stones were consistently flat-topped, strictly horizontal in position, and correctly aligned on the axis of the room.

Floor VI was about 10 cm. above floor VII and of a similar consistency, except that the

¹ Stones for supporting wooden poles were found in the Early Bronze palace at Ai and in the 'G House' at Tell Beit Mirsim (cf. *TBM*, Vol. II, p. 23).

clay was of a lighter colour. A bowl stood upright on the floor, evidently *in situ* (Pl. VI, 1), and a model pot lay near by. Another complete bowl, also found in an upright position, was found stuck to the bottom of a large stone wedged in between phases I and II of the north wall (cf. floor V). The bowl was decayed and cracked but was successfully removed after treatment with hot paraffin wax. Two flat pillar bases were set in the floor, at a distance of 6.5 m. from each other (*b* and *f* on Plan).

The debris between floors VI and V formed a layer 10–15 cm. thick; it contained a quantity of highly burnished red-slip sherds and several fragments of ridged rims.

Floor V consisted of a thin layer of beaten mud and was covered with extensive patches of dark-grey ashes and abundant potsherds. Two of the patches of ash were noticeable as being almost exactly circular (Pl. VI, 3). The larger probably represents the traces of a hearth, while the smaller (11 cm. across) may indicate the position of an incense burner. Near the north wall was a bowl standing upright on its base and near it lay a chicken bone, with another a little farther away. Several sherds, including the rim of a hole-mouth jar, and a quantity of shells lay scattered on the floor. About a metre distant from the bowl there were a few stones laid in an irregular circle, as if to support a jar. Many more stones lay about, but being unworked and in apparent disorder, their function could not be ascertained.

Two pillar-bases in the form of flat-topped stones were found related to this floor (*a* and *c* on Plan).

One large stone embedded in the floor was partly wedged between two courses of masonry in the northern wall, the upper of which belonged to phase II and the lower to phase I. At another point, farther west, a layer of ashes corresponding to floor V was observed to continue inside the masonry of the northern wall, below the lowest course of phase II.

These details prove conclusively that phase II was built after floor V had been abandoned, and thus fix the relation of the floors to the building phases. It is clear that floors VII–V belong to phase I, while floors IV–I belong to phase II.

In the debris between floors V and IV there was a model bowl (Fig. 17, No. 232) amongst other pottery.

Floor IV was about 10 cm. above floor V and did not differ in consistency and general appearance from the other floors below it. No pillar base belonging to this floor was found.

Floor III, 15 cm. above floor IV, was mainly of beaten mud and showed large patches of black ashes. Two square stones served as pillar bases (*d* and *g* on Plan), the eastern one being of unusually large size, 80 × 50 cm.

From the filling between floors III and II came a pottery dove figurine (No. 155).

Floor II was 15 cm. above floor III and was indicated by a thin layer of ashes, overlying a layer of clay 1–2 cm. thick.

Floor I, finally, was 20 cm. above floor II. It was of hard mud and contained a quantity of small pottery fragments and many irregular and scattered stones, probably fallen there during some destruction of the building.

Along the southern wall there was a kind of platform built of large boulders; its con-

struction was so irregular, however, that nothing could be made out of it. At one place the stones were laid in a rough circle as if to serve as a jar stand or, perhaps, to hold a post.

Above floor I was a layer of sand 40 cm. thick. This was practically sterile and contained only a few Middle Bronze II sherds and one fragment, probably of Roman date, much worn and evidently a stray.

The sand layer, we assume, represents a period when the building was abandoned. This abandonment, however, could not have been final, since above the layer of sand was a layer of black clay, 7 cm. thick. The sherds in this topmost layer were too fragmentary to indicate any characteristic forms, but they showed the specific features of the local Middle Bronze II pottery, i.e. thick soft ware of reddish-buff clay containing small grits and imperfectly baked through. One fragment showed fine wheel-combing and another traces of combed decoration.

Since the clay layer was a few centimetres below the surviving tops of the walls, we may conclude that it represented an additional occupation of the building, still within the limits of Middle Bronze II, but separated from the preceding floors by a period during which the building was deserted. It is impossible to estimate the duration of this period, but it need not have been a long one, since the sand accumulates quickly on this part of the coast.

Above this latest occupation level there was only a surface deposit of wind-blown sand overgrown with scanty grasses. Even this surface deposit contained Middle Bronze II sherds, proving that there was no occupation of the site between Middle Bronze II and the Roman-Byzantine period. The latter, however, attested by surface pottery on the eastern and southern slopes of the *tell* (cf. p. 3), must have been of a transitory nature, since no building remains of the period were found.

Room I A

As may be gathered from the plan, this room is not so much an entity in itself as an extension of Room I, added when the latter had already been in use for a considerable period.

Its structural relation to Room I may best be seen on the outside of the northern wall (Pl. III, 1). A glance at the masonry, where it joins the north-west corner of Room I, is enough to show its inferior quality. The stones are even rougher and more irregular than those of Room I; and the attempt to lay the stones in courses, though still apparent, is not seriously sustained. The stones are on the whole smaller; the flat stones have disappeared; the interstices are wide, and the facing stones are less well bonded with the interior masonry of the wall.

The later date of Room I A is attested not only by the inferior quality of its masonry, but also by the fact that its walls are built upon debris which had accumulated outside Room I. The bottom course of the northern wall was in fact built 1.20 m. above the bottom course of Room I. On the other hand, the southern wall was a direct continuation of the south wall of Room I, built practically on the same level, and showing little difference in its masonry, which is equally poor in both rooms. The distinguishing feature of the southern wall of Room I A is the frequent use of soft limestone blocks,

probably quarried on the spot. The wall dwindles away towards the west; whether this was due to a deliberate destruction or to the gradual weathering away of the soft material it is impossible to tell.

The west wall of Room I A is identical in construction with the northern one, and like that is built on layers of debris the strata of which may be clearly seen on Pl. V, 4. This, too, dwindles away towards the south, and it was impossible to judge whether the gap near the south-west corner of the room was due to destruction or whether, as seems more likely, it was due to the presence there of the entrance into the room.

The eastern wall of Room I A, which is also the western wall of Room I, has already been described (p. 8).

The interior of Room I A was filled with debris similar in character and contents to that in the main room; there was, however, no relation between the stratification and floor-levels of the two. The stratification within Room I A was less definite and the number of clearly marked floors much smaller, perhaps because the debris accumulated much quicker in the confined area of the room, which served also as a depository for refuse from the main room.

At a depth of 45 cm. below the top of the northern wall was a heavily burnt stratum with quantities of small sherds. From this level, which clearly belongs to the third phase of the building, in which Room I A was added, came several fragments of clay figurines, among them a hunchback (Pl. XII, 8), and the fore part of what seems to be a sheep (Pl. XII, 7).

A second floor-level appeared 6 cm. below, marked by ashes and a horizontal layer of crushed sherds.

A third layer, 18 cm. below the second, lay beneath the foundation of the walls of the room. It sloped down westwards and belonged to a period when the area was still open and served as a depository for refuse thrown out of Room I; this, together with the surrounding area, was called 'Locus B' during the excavation. It contained several fragments of incense burners and quantities of animal bones; this is the next area to be described.

Locus B

This extends to the west and partly to the north of the building. In contrast with the characteristic occupation debris of the interior and with the areas south and east of the building, which showed mainly blown sand with occasional patches of debris, Locus B had all the characteristics of a dump or refuse heap. For a depth of over 1.50 m. it was just a solid mass of dark-brown to black earth and ashes, packed with thousands of sherds of every size, type, and description, hundreds of bowls, scores of fragments of juglets and of larger jars, Tell el-Yahudiyeh pottery, some dove figurines, and many model offering-pots. But the most interesting finds were the fragments of cylindrical incense burners which lay in thousands everywhere, unfortunately very much broken, but in such quantities as to represent the dominant feature of the area (Pl. VI, 2). Many fragments were found crushed together; one particular example, a highly polished carinated bowl, containing an animal bone, had a fragment of an incense burner smashed right into it.

Among the pottery fragments were large masses of broken animal bones and quantities of shells. Here and there the mass of black debris was interrupted by patches or layers of sand, mostly sloping downwards from the building and suggesting that the refuse was sometimes wholly or partly covered with sand blown from the shore. The striations of the refuse likewise sloped downwards to the west and north, i.e. away from the building, from which it had been dumped.

The sloping stratification of the debris in Locus B and its implications could conveniently be studied outside the northern face of the building, at the junction of Rooms I and I A, where the strata were seen in section beneath the northern wall of Room I A. The following details could be noted:

1. The striation of the debris in Locus B falls in a gentle slope of not more than about 30° , indicating that the natural slope of the hill was quite gradual on this side.
2. The strata run uninterrupted beneath the foundations of the northern wall of Room I A until they actually reach the wall of Room I.

It is therefore certain that the debris of Locus B accumulated during the first occupation of the building. The refuse from the second phase must have been disturbed when Room I A was built, and parts of it may be represented in the strata of refuse just above Locus B. In any case, the stratification establishes the following sequence: (1) First phase of Room I and contemporary accumulation of Locus B strata; (2) Second phase of Room I and contemporary accumulation above Locus B; (3) Room I A. Although Room I A must have been built some time after the building of the second phase of Room I, it is most probable that both rooms were used simultaneously, Room I A serving merely as an extension of the main room. This is inferred mainly from structural evidence, the foundations of the northern wall of Room I A being on the same level as the foundations of the wall of the second phase of Room I, and the southern wall of Room I A being well bonded with the southern wall of Room I.

The evidence of the finds is of little use in this case, since we cannot expect a change of style within so short a period, seeing that the whole occupation of the site falls within Middle Bronze II.

Room II

This room, 6.70 m. long by 3.50 m. wide, adjoins the eastern side of Room I. Three walls have been added to the existing eastern wall of Room I and the latter has been heightened by some additional courses, of which two only remain. The three walls, and the additional courses at the west, exhibit a type of masonry inferior even to that of Room I A, and the worst encountered on the site. Field stones, unworked and of every size and description, have gone to make up the walls. Joints are wide, and courses rarely distinguishable. Larger stones here (e.g. in the southern wall) interchange with smaller ones there (e.g. in the centre of the eastern wall).

The walls are much thinner, especially the west wall which is built over the eastern one of Room I (cf. Pl. IV, 1). Here there is a suggestion of a door, marked by an uncertain

threshold, by slight indications of door jambs, and by a stone, 94 cm. long, laid across the wall from face to face. However, the wall is so much destroyed at this point that the existence of the door is doubtful.

The walls of Room II. The foundations of the northern and southern walls slope down from west to east, conforming, as usual, to the configuration of the ground and the earlier accumulations of the debris upon it.

Below the foundations of the north wall there is a layer of sand, about 50 cm. deep, and below the sand layer, a row of flat stones overlying a course of large boulders (Pl. IV, 2). A similar row of flat and partly dressed stones projects from under the south wall and runs due east beyond the eastern limit of Room II. The top of the layer of flat stones at the north is level with the foundation course of phase I in the west wall. What these courses of flat stones mean it is difficult to imagine. They may well represent the remnants of a stone pavement or platform built outside the main room.

The history of the room may, then, be reconstructed as follows. During phase I of the main room, there was an open platform or terrace behind the temple. It was used as an open-air kitchen, as is shown by large quantities of ashes, found mainly in the northern part of the room. Later a stone dais seems to have been constructed for use as a hearth; remains of this were seen for a length of 2.30 m. projecting from the east wall into the room. A thin layer of ashes appeared in section just above this projecting ledge and below the east wall.

The remainder of the east wall is built over occupation layers which continue beneath its foundations, confirming the assumption that the room was built over debris and sand accumulated while the space was open. After the room had been built it, too, was put into use as a kitchen and store room. This is proved by numerous fragments of cooking pots and by a noticeable reddening of the face of the wall. A close examination showed that not only the surface of the stones but even the mud mortar between them had assumed a red tinge, while some of the stones were quite brittle and crumbly to the touch. It may therefore be inferred that the colouring was the result of intense and prolonged heat, such as would naturally arise in a kitchen.

In the south-east corner of the room were the remains of a circular silo, built of larger slabs of stone set on edge (Pl. V, 3). Only about half of the circle was found in position; the rest was missing. The floor of the silo was of beaten mud.

Judging by its position, well below the level of the foundations, it seems difficult to connect the silo with the building of Room II, even supposing it to have been partly below ground. It seems more likely that it was in use during the period of the open-air kitchen, to be abandoned subsequently and filled in when the walls were built.

Rooms III and IV

To the north of Room II were two small adjoining rooms, partly destroyed. They were too small to have been lived in, but may have been used as store rooms. Only small quantities of pottery fragments were found in the debris. The masonry was of inferior quality and similar to that of the walls of Room II, with which the two small rooms were contemporary.

*The Finds**Incense Burners*

Innumerable fragments of incense burners were found all over the site and especially in the deposit of refuse, Locus B, where they lay thickly in layers or in groups, just as they were thrown away after use. Unfortunately all the incense burners were completely smashed, and in spite of all efforts of the *Formatore* it was impossible to fit together a single example (Pl. VII). The shapes, however, could be reconstructed and drawn;¹ they comprised three types differing from each other in details but based on the same principle.

All three types are more or less cylindrical in form, open above and below, and are provided with several handles and with openings in the walls. The decoration consists of moulded rope patterns running round the body.

Type I is at once the commonest and the simplest in form (Fig. 9). The cylindrical body widens slightly at the bottom to give the vessel a firm base. The main passage for air is through two rows of rectangular openings or windows in the upper part of the incense stand. There are four windows in the upper row, separated by two handles, and two windows in the lower with probably two handles. A series of holes piercing the wall just above the bottom edge supplies additional ventilation. The number of the windows and upper handles is certain, but the lower handles have been drawn conjecturally in dotted lines on the analogy of type II (below), and on the assumption that the two upper handles would not have sufficed to carry the weight of the burner. The upper rim is sharply defined, and rectangular in section.

The simple moulded ornament just below the rim shows slight variations. It consists of a low plastic band with incised criss-cross lines or a rope ornament.

The ware is rather coarse, red or buff in colour, but black in section. The larger vessels often contain a quantity of white grits, rather like cooking-pot ware. Most of the fragments are wet smoothed but many are covered with a dull-red slip.

Type II is on the whole similar to type I and differs only in the larger number of handles and openings, viz. six handles and eight openings in each row (Fig. 10). The windows and handles of the lower row are placed exactly below the

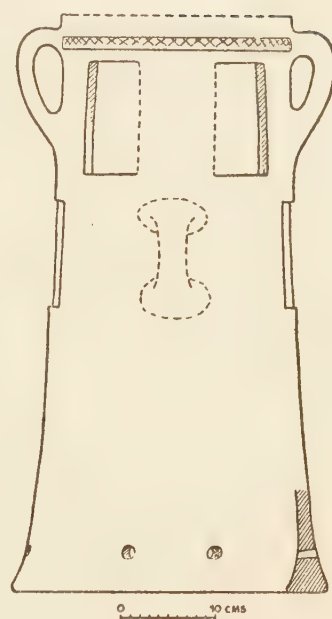


FIG. 9. Type I

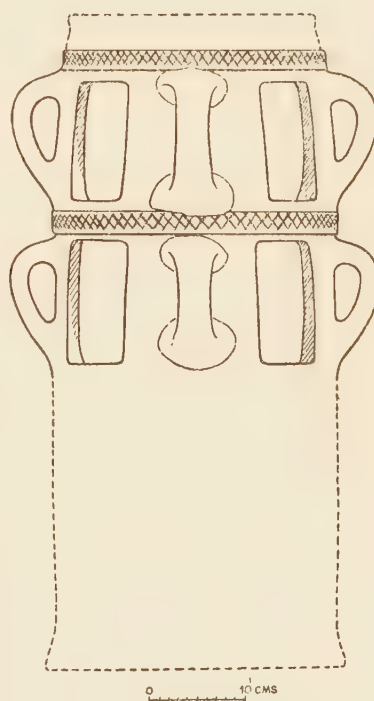


FIG. 10. Type II

¹ For the reconstructions I am indebted to Mr. N. Avigad of the Archaeological Department of the Hebrew University.

corresponding windows and handles of the upper row. The two rows are separated from each other by an additional band of moulded decoration. There may have been a row of holes, piercing the foot of the vessel, but this is uncertain.

Type III differs from the former two types in having a shoulder in the form of a truncated cone with concave sides (Fig. 11). The other details are common to types I and II. Fragments of one specimen only were found belonging to this type. The shoulder is covered with a burnished red slip, while the remainder of the body is wheel-combed.

Other types. Amongst hundreds of fragments certain variations in detail occur. No. 211 (Pl. VII, 5) has rounded openings; in No. 413 (Pl. VII, 4) the holes are arranged in a triangle, and not pierced through; No. 387 (Pl. VII, 10) shows traces of openings with

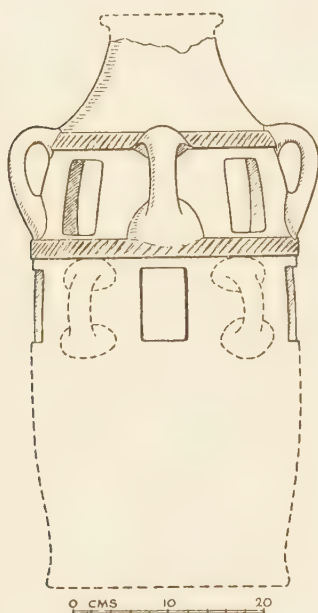


FIG. 11. Type III

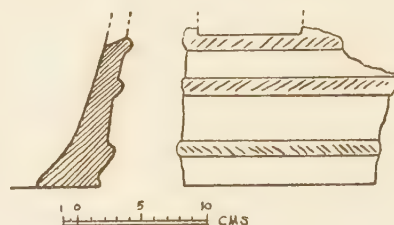


FIG. 12

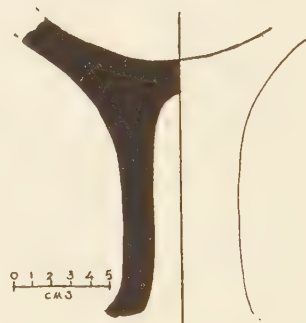


FIG. 13

notched edges and holes not pierced through at the corners. Some variations in the mouldings may be seen on Pl. VII, Nos. 12-19, and Fig. 12 (multiple bands of rope decoration).

Amongst the later pottery in the upper layers of Room II were parts of offering stands on a high foot (Fig. 13).

Incense burners are rather rare in the Middle Bronze Age of Palestine. We may quote one from Gezer¹ with rectangular openings but without handles, and one from Megiddo.²

Among the more frequent types of the Late Bronze, those from Tell Duweir³ represent a fairly close parallel in form and decoration, the only difference being in the form of the windows, which are triangular in the Tell Duweir examples.

¹ Macalister, *Excavations of Gezer*, Vol. III, Pl. CVI, No. 6.

² May and Engberg, *Material Remains of the Megiddo Cult*, Pl. XIX, 1.

³ O. Tufnell *et al.*, *Lachish II*, Pl. LIII B, No. 322.

Model Pots

A rather unusual pottery type is represented by a large series of miniature vases (Pl. VIII). As these have hitherto been unknown in Palestine,¹ they merit a detailed description, though it would be superfluous to catalogue every piece. The vases, of which 129 were found in all, average between 2 and 6 cm. in height, the majority being 4-5 cm. high. It is clear that such small vessels could have had no practical use, and were therefore meant as models offered to the deity in lieu of full-sized vessels.

The idea of presenting small model vessels either in temples or in tombs is known in Neolithic Europe and in the ancient Near East. In Egypt model pots are found in tombs of the third and fourth dynasties; they are made of stone, pottery, or even wood. Their symbolical purpose is shown either by their miniature size or in some cases by the fact that they are solid inside.²

Such model pots and bowls were found at Meydum in 1932, when the writer was on the staff of the expedition. They turned up in thousands along the base of the pyramid of Seneferu and near the pyramid temple, where they had evidently been left as symbolic offerings. No full account of the excavation has hitherto been published; the pot and bowl shown on Pl. VIII, 30-1 may serve to illustrate a class of model pots which, though of a different period, must have served the same purpose as the model pots of Nahariya and have been due to a similar trend of thought.

The closest parallel to the Nahariya model pots, with regard to both period and shape, is to be seen at Byblos.³ Here scores of such pots were found in the temple of the Middle Bronze II period. Comparing the forms of the Byblos pots with those of Nahariya (Figs. 14-17), we cannot escape the conviction that they are closely related to each other. The fact that both sites are on the Phoenician coast is specially significant.

The most remarkable fact about the model pots from Nahariya is that, with few exceptions, the shapes differ from those of the full-sized pottery of the period. They are not therefore, as one would suppose, imitations of larger vases, but miniature pots made according to the fancy of the potter. The majority are wheel-made, but quite a number are modelled by hand. The types range from graceful and slender shapes to clumsy and primitive-looking specimens. Many are in the form of tumblers with flat base and flaring rim. A few of these have a hole in the base (Nos. 127, 268, and others not illustrated), which again proves their ritual use. They show, of course, several varieties of outline, ranging from practically cylindrical (No. 268) to gracefully curved forms (No. 291). Some are no larger than a thimble (Nos. 145, 146).

Other types of model pots are: (a) furnished with a definite pointed base (No. 257); (b) shaped like a cup with straight slanting sides (No. 237) or bell-shaped (No. 406); (c) juglets (Nos. 224, 292), imitating in one case a Middle Bronze II dipper juglet with

¹ With the possible exception of a small pot from Gezer forming part of two communicating vessels and explained by Macalister as a 'filler' (cf. *Gezer*, Vol. II, p. 186 and Vol. III, Pl. 168, No. 11) and the compound vessel from Megiddo, on which see below.

² Cf. Petrie, *Meydum and Memphis* (III), p. 6, Pl. XXIV, 11-13, 15.

³ Dunand, *Fouilles de Byblos*, Vol. I, p. 277, Fig. 237; p. 287, Nos. 4115-19; p. 314, Fig. 253; p. 320, Fig. 257. Cf. photographs on Pl. CLXI: 4110, 4114.

trefoil mouth (No. 271). The exquisite little pot, No. 325 (Pl. VIII, 16), is an exact replica of a larger juglet (Pl. IX, 19). The latter is plain, whereas the model shows painted decoration on shoulder and handle.

About half the model pots have a fragment of clay adhering to the lower part of the body or to the base, proving that they were originally joined to something else.¹ The idea of a *kernos* at once suggests itself, but no fragments of rings were found. On the other hand some of the pots are double, Nos. 238, 278, 356, for example. In such cases the pots touch, and rest on a common platform of clay. The fragment of clay which surrounds and adheres to these double pots suggests the possibility that the pair belonged to a larger group. A parallel may be found in the unique vessel from Megiddo (Pl. VIII, 32) found in Level X, of the end of the Middle Bronze II age, which is described by the excavators as a 'lamp'.² It may be noted, however, that the vessel has no nozzle for a wick and more likely represents a group of offering-pots. There is this difference, however, that the cups in the Megiddo vessel are interconnected, as in some true *kernoi* of the Late Bronze Age, of which the Megiddo and Nahariya model pots may be the prototypes.

Model Pots

No. ³		Provenance
106	Flat base; hard buff ware with white grits (Fig. 14 and Pl. VIII, 11)	Locus B
125	Flat base, traces of attachment; reddish-buff ware (Pl. VIII, 27)	"
126	Flat base, traces of attachment; light-buff ware (Fig. 14 and Pl. VIII, 10)	"
127	Pierced base, traces of attachment; reddish-buff ware (Fig. 14)	Outside Room I, at S.
129	Buff ware, hand-made	" "
140	Traces of attachment; reddish-buff ware, black in centre (Fig. 14 and Pl. VIII, 2)	Locus B
145	Miniature pot; red ware (Fig. 14 and Pl. VIII, 13)	"
146	Miniature pot; brown ware, smoked (Fig. 14 and Pl. VIII, 7)	"
150	Hand-made, traces of attachment; dark buff ware (Fig. 14)	"
159	Traces of attachment; reddish-buff ware, wheel-marks (Fig. 14 and Pl. VIII, 3)	"
160	Traces of attachment; red ware, wheel-marks (Fig. 14)	"
170	Traces of attachment; greyish-buff ware; wheel-made (Fig. 14)	"
178	Traces of attachment; greyish-buff ware, hand-made (Fig. 14)	"
216	Traces of attachment; brown ware, hand-made (Fig. 14)	"
224	Juglet, neck and handle broken off, hand-made (Pl. VIII, 21)	Room I, below floor VII
234	Same type as No. 125, but without attachment; brown ware	Dump
235	Similar to No. 326; buff ware	"
237	Traces of attachment; dark-grey ware, smoked outside (Fig. 14 and Pl. VIII, 9)	Locus B

¹ Similar attachments must have occurred on some of the Byblos pots. They seem not to have been rendered in drawing, but are visible on one pot shown in a photograph, cf. Dunand, *op. cit.*, Pl. CLXI, No. 4114.

² G. M. Shipton, *Notes on the Megiddo Pottery of Strata VI-XX* (Studies in Anc. Or. Civ. No. 17), 1939, p. 21, and 70, Pl. 5, No. 24; Chart: Stratum X, No. 49.

³ The numbers are the original field numbers.

A MIDDLE BRONZE-AGE TEMPLE AT NAHARIYA

<i>No.</i>		<i>Provenance</i>
238	Double pot with traces of attachment; buff ware, hand-made (Fig. 15)	Outside Room I, at N.
249	Traces of attachment; red ware, hand-made (Fig. 15)	Locus B
250	Traces of attachment; buff ware (Fig. 15)	"
254	Similar in form to No. 314, but coarser ware	Room I, below floor VII
255	Buff ware, hand-made (Fig. 15 and Pl. VIII, 26)	Room I, below foundation of N. wall
256	Pot on solid foot, hand-made; reddish-buff ware (Fig. 15 and Pl. VIII, 25)	Locus B
257	Pointed base; buff ware, partly smoked; hand-made (Fig. 14 and Pl. VIII, 8)	"
264	Base fragment similar to No. 178	Room I, W. end
268	Flat base, pierced; dark-grey ware, wheel-made (Fig. 15 and Pl. VIII, 18)	Room II, near foundation of N. wall
269	Fragment of pot similar to No. 330	" " "
271	Pot in the form of a dipper juglet with trefoil mouth and pointed base, handle broken off; buff ware (Fig. 15 and Pl. VIII, 15)	Room I, floor VII
272	Similar to No. 129	" "
278	Double pot; reddish-buff ware, dark grey in centre (Fig. 15 and Pl. VIII, 12)	Room I, below floor VII
279	Similar to No. 237	Room I, floor VII, near N. wall
284	Traces of attachment; buff ware, wheel marks (Fig. 16)	Room I, below floor VII
286	Fragment of pot similar to No. 330	" " "
287	Dark-grey ware, white grits (Fig. 15)	Locus B
288	Coarse brown ware, white grits (Fig. 16 and Pl. VIII, 17)	"
289	'Holemouth' pot, hand-made; dark-grey ware (Fig. 16)	Room II, near foundation of N. wall
290	Brown ware, wheel marks (Fig. 16 and Pl. VIII, 4)	Room I, below floor VII near. S wall
291	Hole in base; red ware, white grits (Fig. 16 and Pl. VIII, 29)	" " "
292	Juglet, neck and handle broken off; red ware (Fig. 16)	Room I, floor VII, at N. wall
297	Similar to No. 159	Room I, below floor VII, near E. wall
312	Buff ware, wheel marks (Fig. 16 and Pl. VIII, 20)	Room II, near 'platform' at N.
313	Brown ware, black in centre of section (Fig. 16)	Room I, in NE. corner
314	String-cut base; brown ware (Pl. VIII, 24)	Room I, at foundation of N. wall
317	Traces of attachment; light-buff ware, dark-brown slip	Outside Room II, below foundations of N. wall
320	Pot, larger than usual; red ware, grey surface (Pl. VIII, 28)	Room I, below floor VII
325	Juglet with ridged rim and button base; red ware, decoration in brown paint (Fig. 16 and Pl. VIII, 16)	Room I
326	Light-buff ware (Pl. VIII, 23)	Locus B
328	Traces of attachment; buff ware (Fig. 16)	"

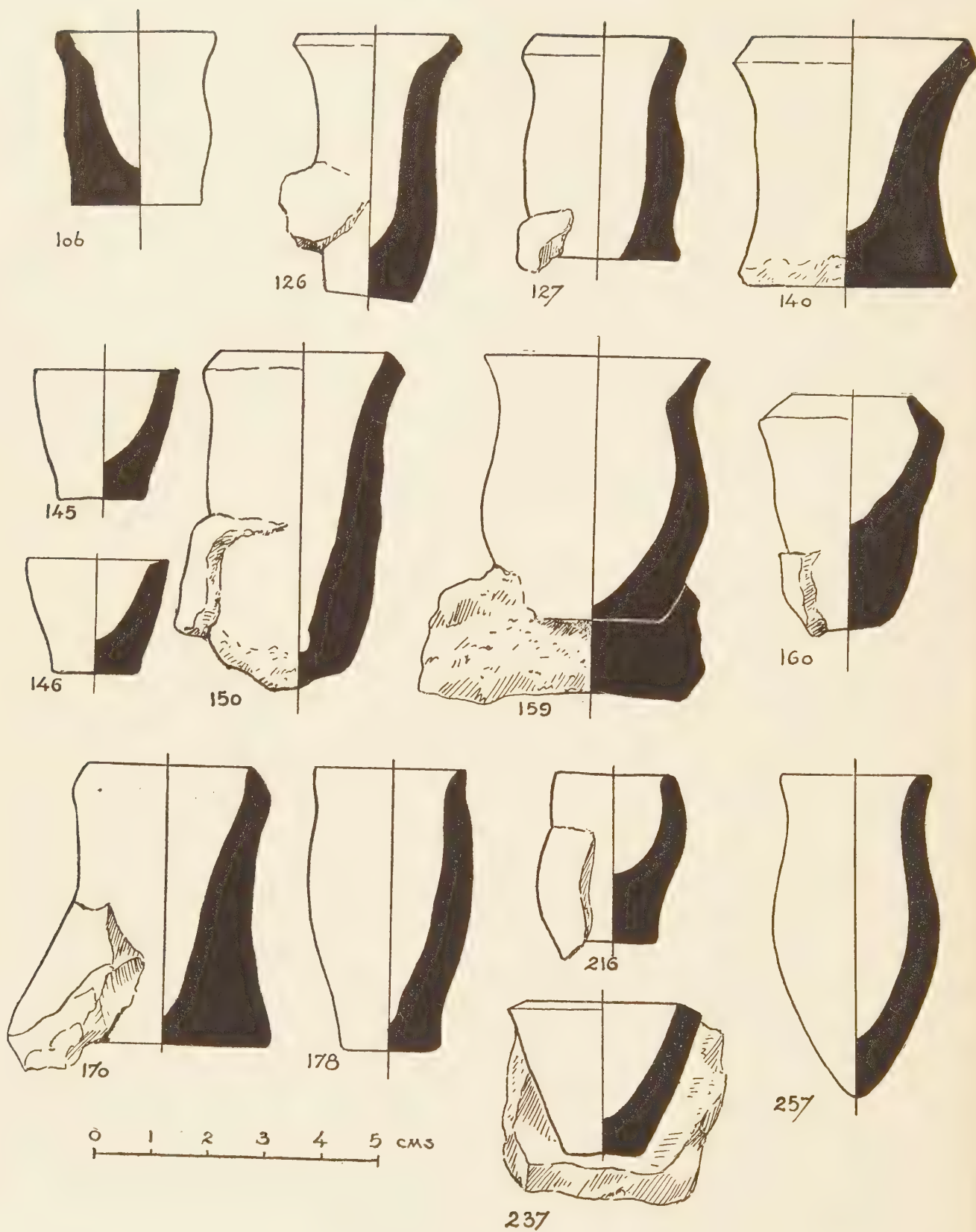


FIG. 14

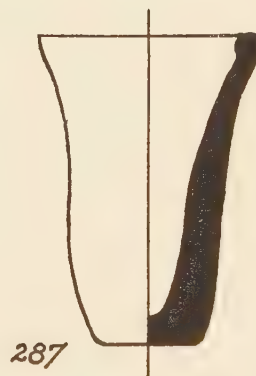
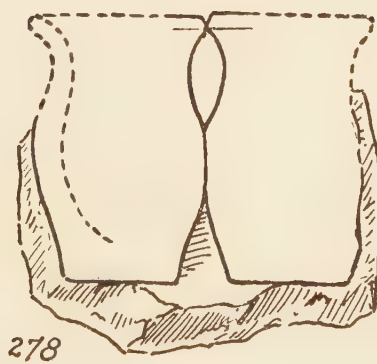
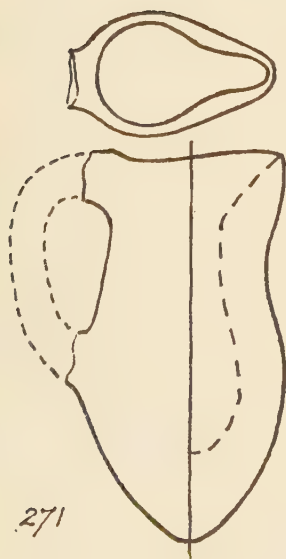
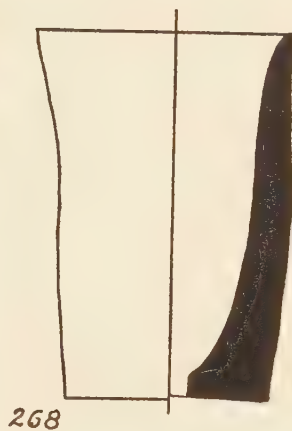
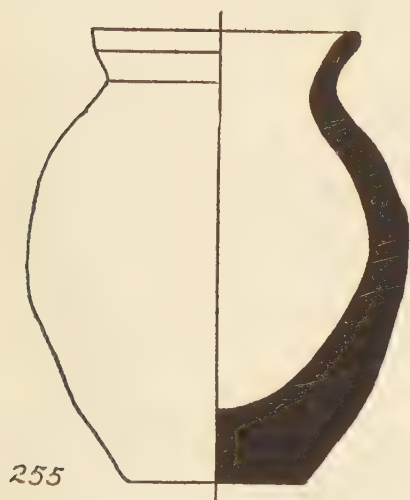
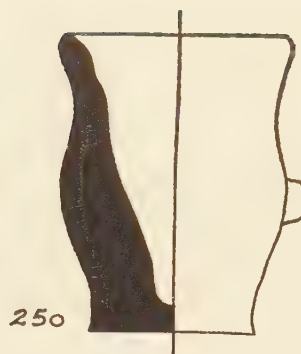
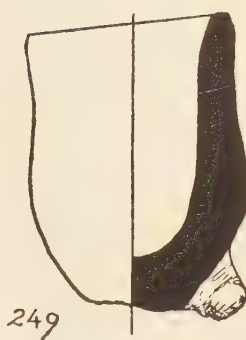
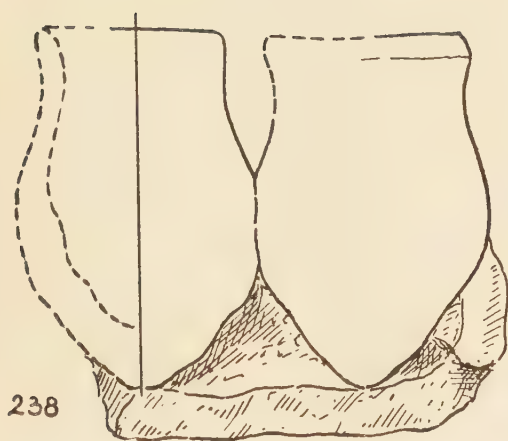


FIG. 15

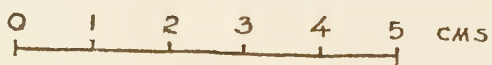
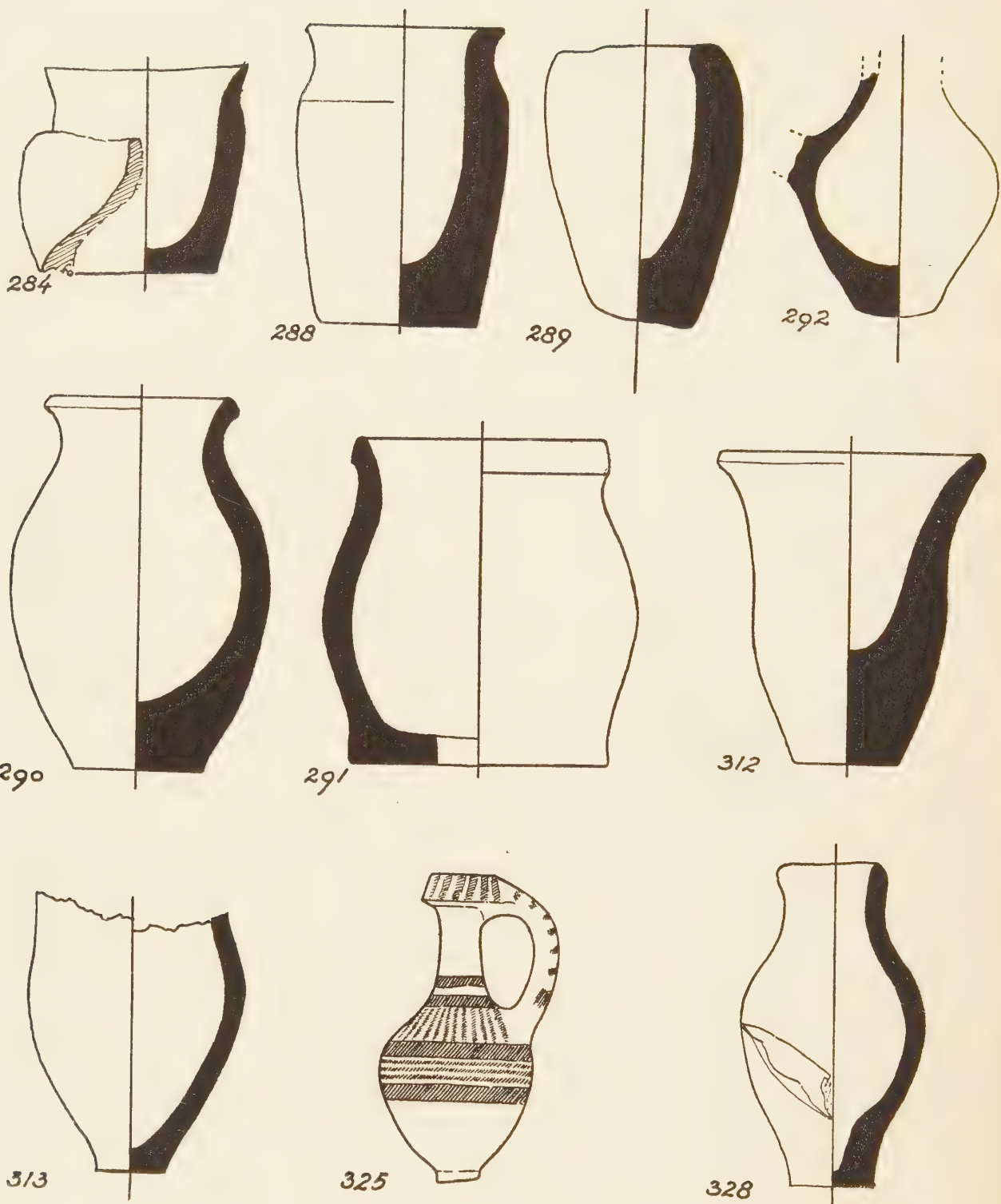


FIG. 16

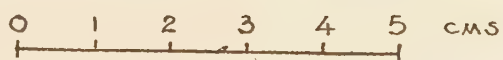
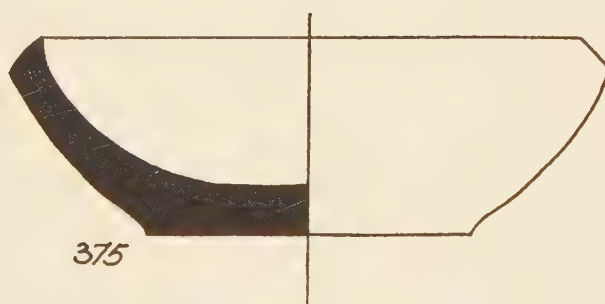
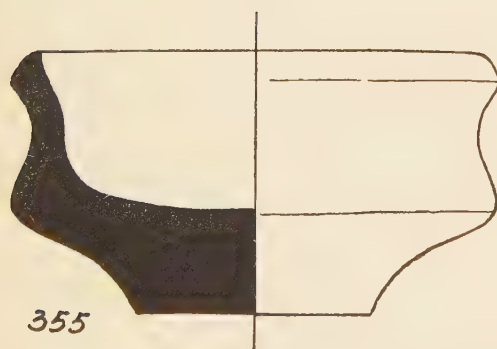
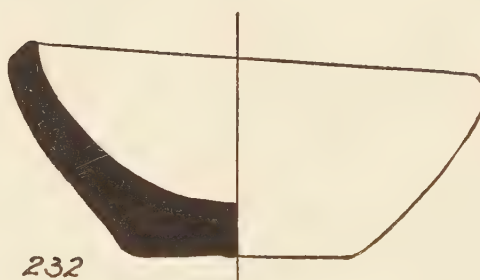
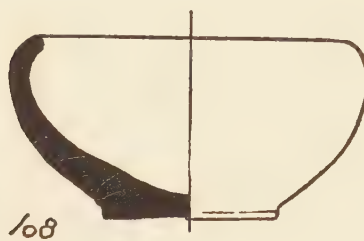
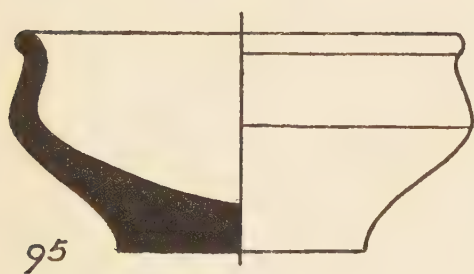
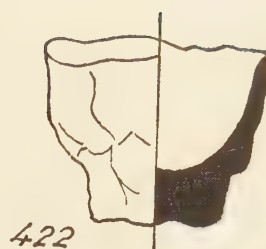
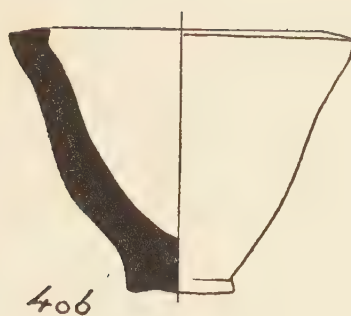
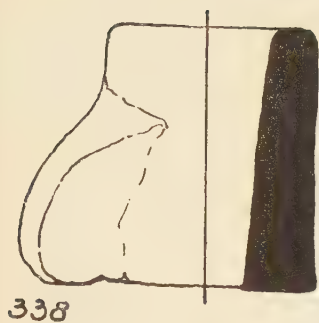


FIG. 17

No.		Provenance
330	Light-brown ware, wheel marks (Pl. VIII, 22)	Room I, below floor VII, in <i>kurkar</i> , near N. wall
333	Similar to No. 237 (Pl. VIII, 1)	Locus B
338	Traces of attachment; pierced base; greyish-buff ware (Fig. 17)	Room I, outside, at S.
343	Traces of attachment; hole in base; reddish-buff ware	Locus B
344	Similar to No. 317	"
352	Similar to No. 126 (Pl. VIII, 14)	W. of building
356	Pot with rest of another attached; brown ware (Pl. VIII, 19)	Room I, below floor VII
406	Red ware, white grits (Fig. 17)	Room I, below floor V
422	Very irregular, hand-made; light-buff ware (Fig. 17)	Locus B

Model Bowls

95	Bowl with rounded carination; buff ware, dark-red slip on outside and on rim (Fig. 17)	Locus B
96	Half of a carinated bowl, string-cut base; light-buff ware, dark-red slip outside and below rim on inside	"
108	Incurving lip, coarse disk base; brownish-grey ware, brown slip on outside (Fig. 17)	Surface of <i>tell</i>
130	Coarse, unevenly concave base; red ware, wet smoothed (Fig. 17 and Pl. VIII, 6)	Outside building, near S. wall
136	Part of bowl, 'wavy carination', small flat base; red ware.	Locus B
232	Coarsely made, asymmetrical; red ware (Fig. 17)	Room I, below floor IV
355	High disk base; heavy red ware, grey in centre (Fig. 17 and Pl. VIII, 5)	Locus B
375	Coarse disk base, slightly in-turned rim; drab ware (Fig. 17)	"
388	Fragment of bowl with slightly concave base; red ware, wheel marks	Room I, below floor V

Figurines

A few figurines were found on the *tell*. They may be listed as follows:

1. A silver figurine of Ashtoreth, 53 mm. high, highly stylized, showing the goddess standing with legs closed and arms in the usual attitude on the breast (No. 252). Provenance: Room I, below floor VII (Pl. XII, 5).

The material is noteworthy; silver is still quite rare during the Middle Bronze Age and no silver figurines are known from Palestine.¹

2. A much-corroded bronze figurine of Osiris (?). The head-dress and the arms, which are crossed obliquely on the chest and originally held a flail and mattock, are barely distinguishable (No. 206). Provenance as No. 1 (Pl. XII, 6).

3. Upper part of a curious, hunchbacked male figure with stumps of arms outstretched sideways. Baked clay. The ears project prominently sideways (Pl. XII, 8). Provenance: Filling of Room I A.

4. Upper part of a clay figurine of a monkey (?) or sheep (?) (Pl. XII, 7). Provenance as preceding.

5. Lower part of a male torso (No. 260). Baked clay. Provenance as preceding.

¹ For two silver figurines from Ras Shamra cf. R. Dussaud, *Les découvertes de Ras Shamra et l'Ancien Testament*, 1941, p. 56 and fig. 21.

6. Torso of a seated clay figurine. A hole at the bottom shows that the figurine was fitted to some other object by means of a wooden (?) peg, perhaps to the rim of an incense burner (No. 166). Provenance: Locus B.

Clay figurines of doves. Nine dove figurines were found at various places on the *tell*, some of them before the excavation started. One of these has its wings folded (Pl. XII, 11 a, b), but in all the others the wings are outstretched and the tail spread. On one (No. 156) the plumage on the wings and back is marked with incised grooves (Pl. XII, 10 a, b).

In all the doves a stump is substituted for the legs. In three cases this has a hole (Pl. XII, 12), showing that the doves were fitted on pegs and perched on some object. We are reminded of those *kernoi*, or incense stands, which have doves or other figurines attached to them.¹ It is, of course, impossible to ascertain what vessels our doves could have belonged to. But two handles have been found (cf. Fig. 18 and Pl. XII, 13) which have lumps of clay attached to them with a hole in the centre of each, corresponding in size to the holes at the base of the doves. It is, therefore, not impossible that the doves were attached to handles by means of wooden pegs fitting into these holes.



FIG. 18

That the clay doves had a religious significance is quite clear. We know that they are found in temples of the Bronze Age together with cult vases, e.g. at Gournia in Crete.² In Cyprus, too, doves are frequently found, sometimes together with miniature pots and, notably in the Bronze Age, as accessories upon vases³ or *kernoi*;⁴ in later periods doves are found perched on shrines.⁵ Further parallels may be cited from Mycenae, Sardis, and elsewhere.

It is, therefore, not surprising to find clay doves at Nahariya, a site on the sea-coast, which must have had leanings towards Cyprus and the Aegean. The fact that none have been found on other excavated Bronze Age sites in Palestine⁶ goes to confirm this contention.

Jars

Unfortunately no complete or reconstructable jar has been found and our information can only be gathered from fragments. The rims, handles, and bases, however, show the usual forms current during the Middle Bronze II period.

Rims. The commonest type is the flaring rim (Fig. 19 a, b, c), either plain (Fig. 19 d) or with thickened lip (Fig. 19 e, f), rounded (Fig. 19 g), or sharp on the outside. This ubiquitous jar rim is sometimes folded over (Fig. 19 h, i).

¹ May and Engberg, *Material Remains of the Megiddo Cult*, Pl. XVI.

² Boyd-Hawes and others, *Gournia*, Pl. XI, 3, 4.

³ J. L. Myres, *A Catalogue of the Cyprus Museum*, p. 27 and *passim*. Gjerstad, *Studies on Prehistoric Cyprus*, p. 115 (photos).

⁴ P. Dikaios, in *Syria*, Vol. XIII (1932), Pl. 75, 1.

⁵ J. L. Myres, *Handbook of the Cesnola Collection. Cyprus*, p. 125.

⁶ The dove from Tell Judeideh shown in Bliss and Macalister, *Excavations in Palestine*, Pl. 69, No. 10 J, belongs to the Iron Age.

Quite frequent, too, is the 'profiled' rim (Fig. 20 *a, b, c*), sometimes with a flat top (Fig. 20 *d, e, f*).

Another common type on our site is the ridged jar rim found at levels G-F at Tell Beit Mirsim and considered by W. F. Albright the 'shibboleth' of the early part of the Middle Bronze II period. On our site, however, this type of rim is found associated with true

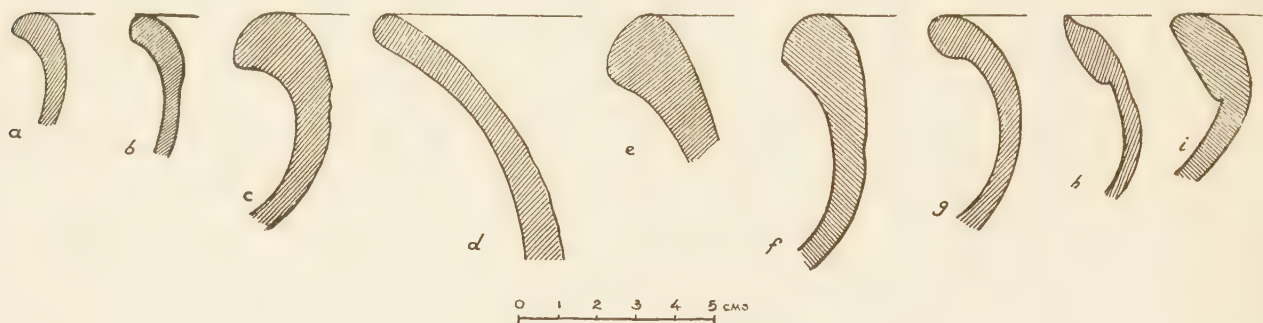


FIG. 19

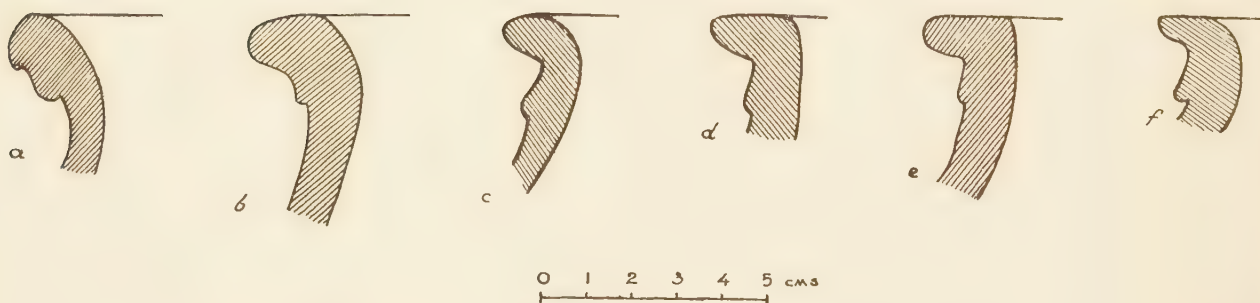


FIG. 20

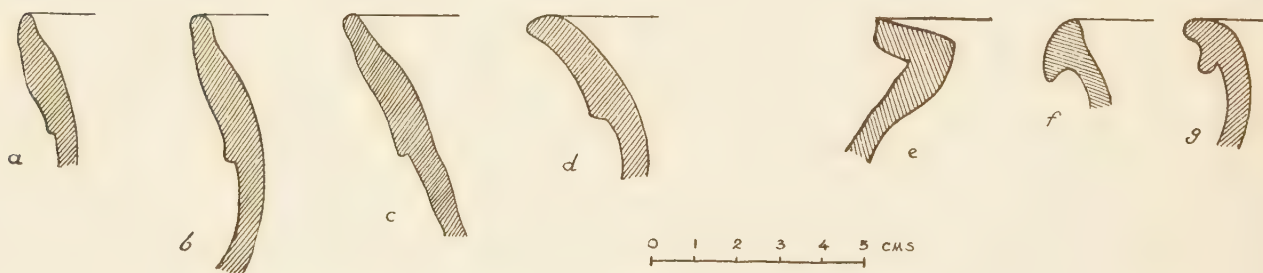


FIG. 21

Middle Bronze II pottery in all levels, beginning with the top (Fig. 21 *a*), in the refuse heap (Locus B), and in the lower levels inside the main room (Fig. 21 *b, c* from below floor VII; Fig. 21 *d* in the *kurkar*). It may, therefore, be assumed that the type had a longer duration on our site, surviving well into the latter part of the Middle Bronze II Age.

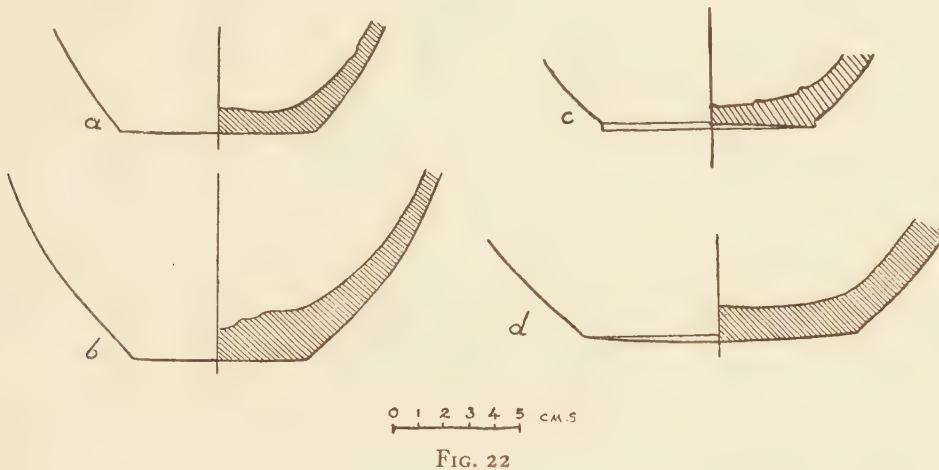
Some unusual forms of rims are shown in Fig. 21 *e, f, g*.

Handles. The handles were of the characteristic Middle Bronze II type, i.e. oval in section with the lower attachment growing out organically from the body of the jar.

A MIDDLE BRONZE-AGE TEMPLE AT NAHARIYA

One handle had an incised cross on its upper attachment and another had an incised sign in the form of a ladder. On the whole, the number of handles found was surprisingly small in relation to the number of rims and bases, less than half a dozen as compared with a hundred rims, and we must, therefore, assume that the greater part of the jars belonged to the handleless *pithoi* illustrated in *Tell Beit Mirsim* I, Pl. 41, Nos. 10, 12, 14, 15.

Bases of jars are invariably of the small, flat variety¹ (Fig. 22 *a, b*), in many cases slightly concave (Fig. 22 *c*) or slightly convex (Fig. 22 *d*).



Occasionally a small flat base of a jar may have an incised cross, although the practice of incising a cross mainly prevails on bowls (cf. below, p. 38).

Surface treatment. The surface of the jar fragments frequently exhibits the regular *wheel-combing* so characteristic of the period (Pl. XI, 15-16). In one particular instance the combing extends over the small flat base.

In addition to wheel-combing which is rather a surface treatment than a decoration, we have true decoration in the form of bands of combed lines (Pl. IX, 10-11, 13-17). This feature, which is current during the first phase of Middle Bronze I, and examples of which occur throughout Middle Bronze II,² is particularly frequent in Nahariya, where it was found on hundreds of fragments.

The combed bands are usually horizontal, sometimes wavy. In a few cases two bands of parallel lines meet at right angles (Pl. IX, 10). Sometimes there are vertical lines of notches between two bands of parallel lines (Pl. IX, 13, 14, 16).

The most frequent type of decoration in Middle Bronze II, plastic bands with herring-bone pattern, is represented by a few examples only.

Hole-mouth Jars (Fig. 23 and Pl. IX, 1-6).

Hole-mouth jars, a name coined for a well-known Early Bronze type, was applied by W. F. Albright also to certain jars of the Iron II Age,³ which have in common with the

¹ Cf. *TBM*, II, and 28, Pl. 6 and Pl. 14, Nos. 7-14.

² *TBM*, I, Pl. 10, No. 10 (Level D). *TBM*, I A, § 28 and Pl. 28 and Nos. 3, 9, 10.

³ *TBM*, I, p. 79, § 103.

former a rounded shoulder passing into a plain or slightly profiled rim without the usual intervening neck.

Strangely enough, this type of jar, hitherto only known in the Early Bronze and Iron Ages, appears quite frequently in Nahariya. Were it not for the pure Middle-Bronze Age context in which they were found, the sherds in question might easily have been mistaken for Iron Age fragments, to which they show a detailed resemblance.

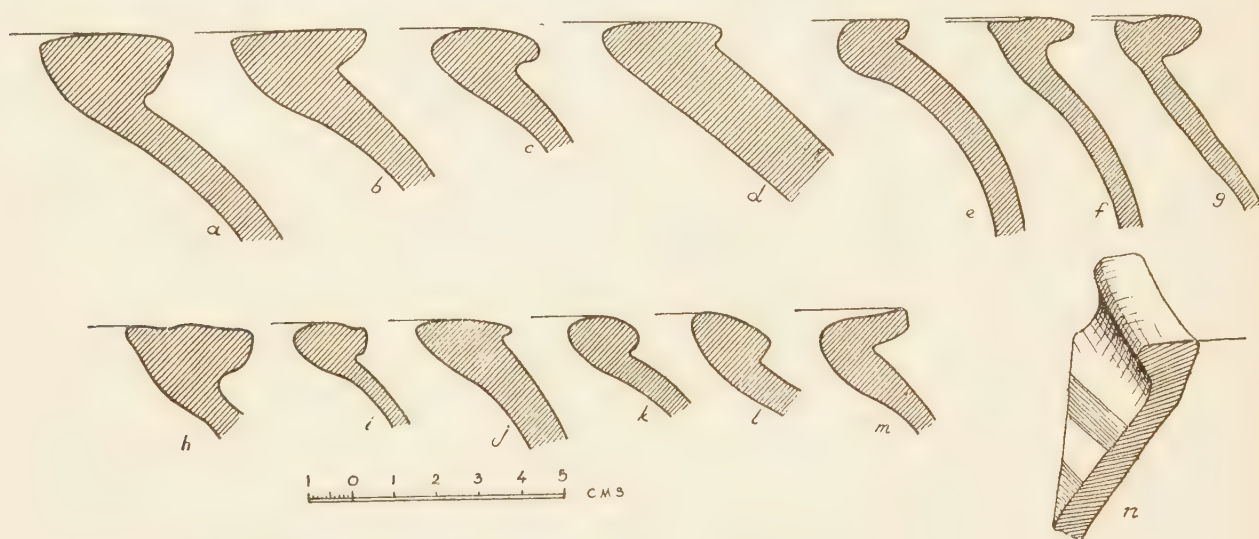


FIG. 23

The Nahariya 'hole-mouth rims' have a flat or slightly convex top (*a-d*); occasionally there is a groove along the inside edge (*g*). In one case (*h*) the flat rim shows two shallow grooves. The fragments found show that the walls of the vessels were sharply inclined inwards, rather more so than the Tell Beit Mirsim examples, so that they may have belonged to large bowls. But here again no Middle Bronze examples seem to be extant and the nearest parallels are to be sought in the Iron Age bowls from Megiddo.¹

Rim *n* is decorated with two horizontal bands in dark red.

Jugs and Juglets

The only remains of jugs are a few handles, single and double. Nothing can be learnt from these about the types.

As for juglets, a quantity of handles of dippers were found, many of them bearing two incised lines near the upper attachment (cf. below, p. 38). The handles are round in section, of buff or red ware, rarely covered with a slip.

The ordinary type of Middle Bronze II dipper is represented by one neck with pinched lip (Pl. IX, 20). Small dippers with double handle are shown in Fig. 24 *a* and *b* (= Pl. IX, 18); the latter is covered with a burnished dark-red slip.

¹ R. S. Lamon and G. M. Shipton, *Megiddo*, Vol. I, Pl. 27, type 84.

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A less frequent type (Fig. 24 *c* (= Pl. IX, 19) is hand-made and covered with a coarse, dark-red slip. An almost exact replica of this, but painted, is the model juglet, No. 325.

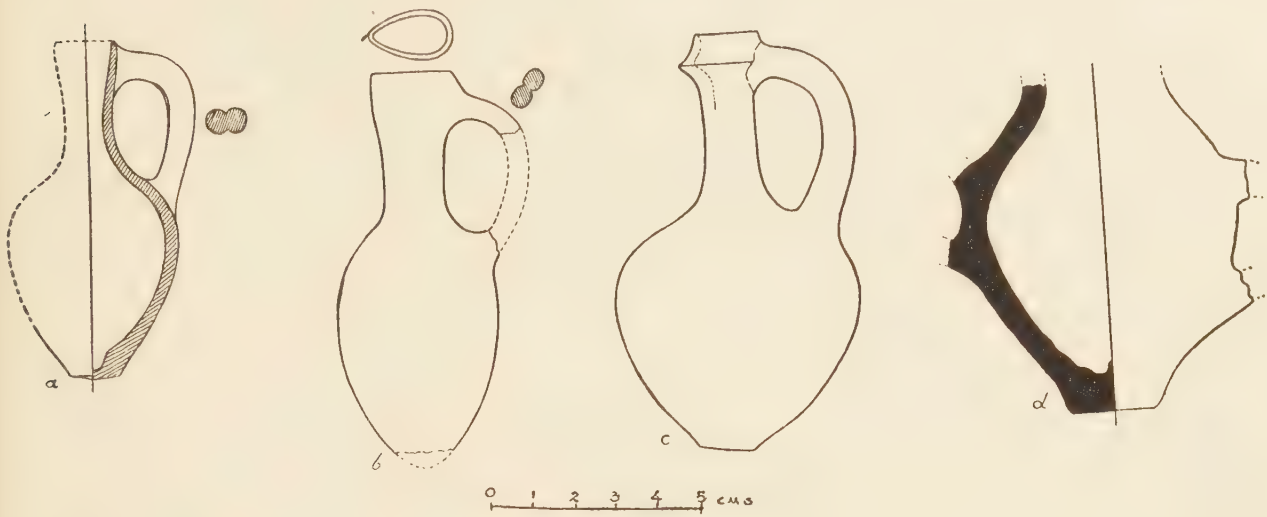


FIG. 24

Fig. 24 *d* shows a small jar with two handles. A rather unusual type is represented by two fragments (Fig. 25 and Pl. IX, 21). These are of greenish-buff ware and probably Cypriote.¹

The juglets of Hyksos ware are separately described below.

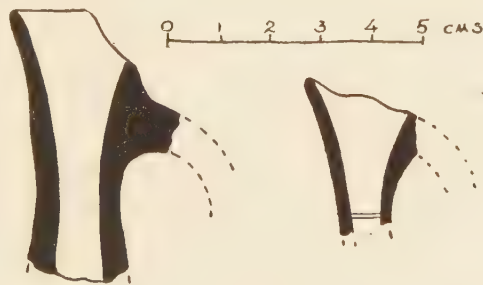


FIG. 25

Tell el-Yahudiyeh Ware (Pl. IX, 23-30)

Several examples of both true and imitation Tell el-Yahudiyeh ware were found on the site. A complete list is given herewith.

No. 34.² Tiny fragment of light-grey ware with dark-grey slip and white inlay. Locus B.

No. 107. Fragment of a small button-base juglet of grey ware. Locus B.

No. 91. Small juglet, grey ware; neck and double handle broken off; traces of button base. Locus B (Fig. 26 *a*).

¹ G. M. Shipton, *Notes on the Megiddo Pottery of Strata VI-XX*, p. 22, § 75: 'no parallels can be found in Palestine.'

² The numbers represent the original field numbers.

- No. 69. Juglet with button base, neck and handle broken off; buff ware, dark-red slip. North of building (Fig. 26 *b*).
 No. 74. As above. Locus B.
 No. 133. Lower part of juglet of black ware; small flat base, slightly convex (?). Incised lines and rows of dots inlaid with white paste. Locus B (Fig. 26 *d* and Pl. IX, 28).
 No. 151. Fragment of grey ware with inlaid decoration of white dots. The workmanship of the decoration is remarkably coarse; the dots are of various sizes and arranged in irregular rows. Room I, 1 m. below top (Pl. IX, 27).
 No. 247. Upper part of small juglet; grey ware; traces of double handle. Locus B.
 No. 294. Juglet with ovoid base, neck and handle broken off; dark-grey ware. Room I, Level VII (Fig. 26 *c* and Pl. IX, 30).
 No. 298. Juglet with button base, neck and handle missing; black ware. Room I, Level IV (Pl. IX, 29).
 No. 409. Juglet, as above. Locus B.

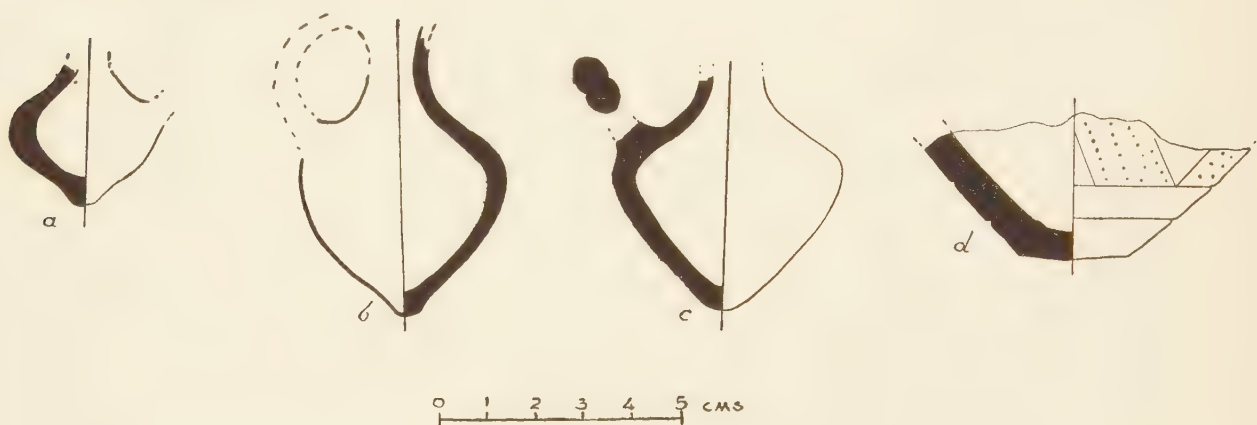


FIG. 26

Five more fragments of juglets with button base; dark ware. All from Locus B.

The fact that practically all the Tell el-Yahudiyeh juglets are of miniature size—*c.* 5 cm. high—leads to the assumption that they, too, were meant to represent model offering-vases. It is true that miniature Yahudiyeh vases are known from various excavations, but nowhere is the proportion of the small juglets so big as on our site, where only four fragments out of a total of sixteen belong to juglets of normal size.

Cooking-pots (Fig. 27 and Pl. X, 1-3, 5, 16)

Fragments of cooking-pots were found in abundance all over the site, but mainly in the store-room and kitchen (Room II), in the refuse heap (Locus B), and inside the main hall (Room I). Unfortunately no complete or reconstructable pot was recovered, but enough rims were found to establish the occurrence of the well-known Middle Bronze II types.

It is noteworthy that not a single sherd was found of the type with flat base and plastic band (as *TBM I A*, Pl. 13, Nos. 3-5) but that all belonged to the second, equally familiar but later, type with rounded bottom and flaring or flanged rim. Since this type appears even in the very lowest strata of our site together with true Tell el-Yahudiyeh ware, we

must assume that it was introduced here earlier than in the south, where the true Yahudiye ware is associated with the flat-based type.

The *ware* of the Nahariya cooking-pots is of the same quality as elsewhere though the proportion of grits seems to be rather smaller than usual. This fact is perhaps due to the quality of the material available on the sea-shore which consists of fine sand and not crushed rock as in the hill country. The surface of the sherds is a greyish-buff or brownish-buff colour, with traces of the quick-turning wheel often clearly visible.

The *rim*s are usually strongly flaring outwards (Fig. 27 *a, b*), with the lower edge of the lip generally rounded (*c*), but sometimes sharp (*d*). A characteristic feature of the rims is a broad flange, sometimes concave (*e*) or even grooved as if to hold a lid (*f*).

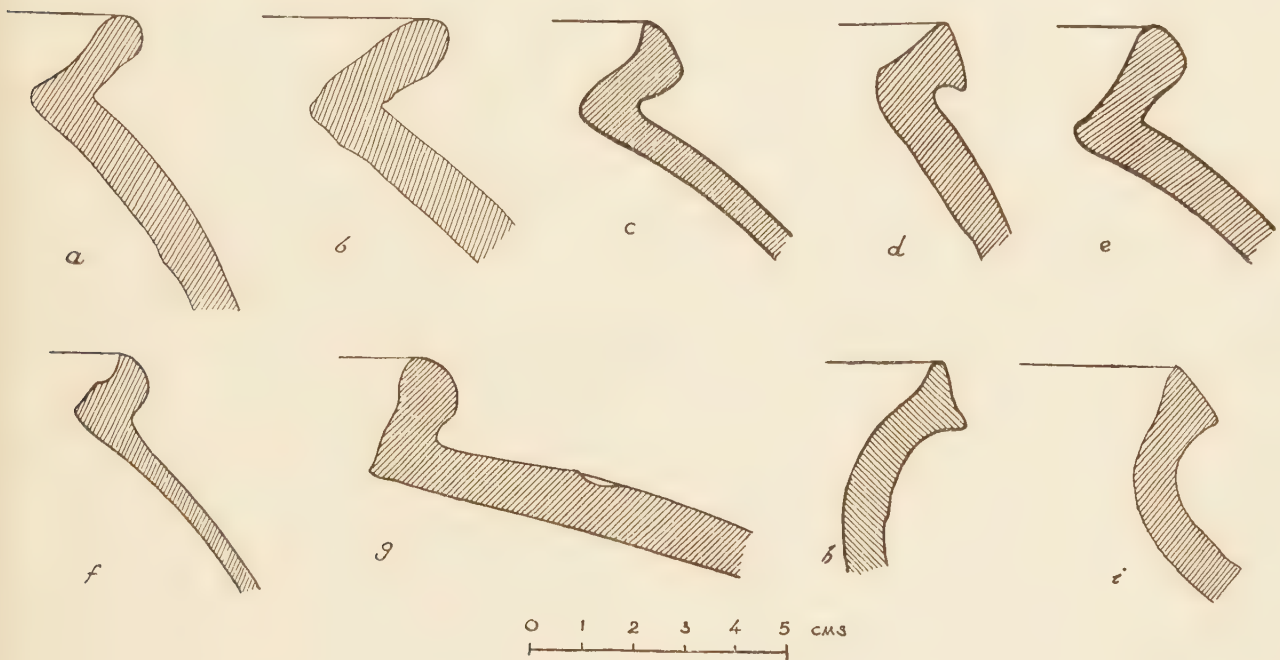


FIG. 27

A large cooking-pot found in Room II, almost complete, but too fragile to be lifted, had a plain flaring rim and, except for the holes and furrows, was of the form illustrated in *TBM I A*, Pl. 5, No. 4. Near by lay the fragments of another large cooking-pot with moulded decoration on the outside of the base consisting of a cross inscribed within a circle (Pl. X, 16).¹

One cooking-pot of otherwise normal form has a row of finger indentations on the flat shoulder (Fig. 27 *g* and Pl. X, 5).

A few rims lack the broad flange, but resemble rather the Late Bronze rim, e.g. Fig. 27 *h* and *i*. These later fragments came from floors I–II in Room I and from the debris in Room II.

¹ Petrie, *Ancient Gaza*, Vol. I, Pl. XXXII, 54, and p. 10. Shipton, *Notes on the Megiddo Pottery of Strata VI–XX*, Chart, Stratum X, No. 46.

Bowls

Only a limited number of the bowls were complete or reconstructable (e.g. Figs. 28–32 and Pl. X, 26), while the overwhelming majority were found in fragments; the forms, however, could be made out in most cases by analogy with complete specimens, or by comparison with known types from other sites. There was nothing like the great variety of bowl forms usual in the Middle Bronze II period. The forms are on the whole simple,

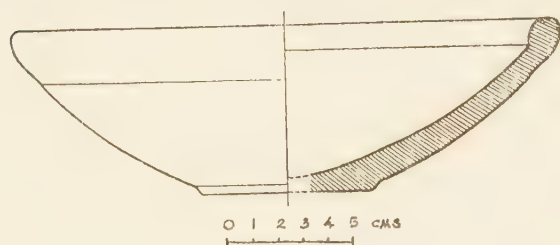


FIG. 28

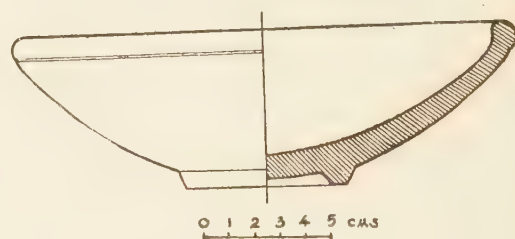


FIG. 29

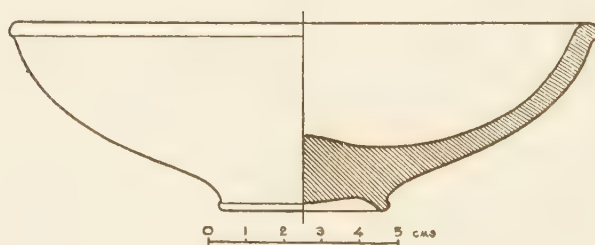


FIG. 30

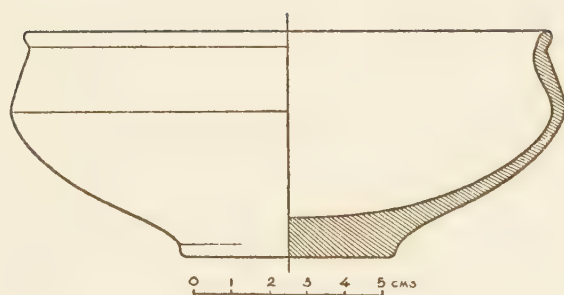


FIG. 31

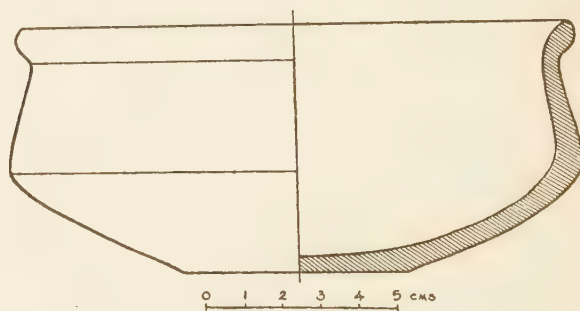
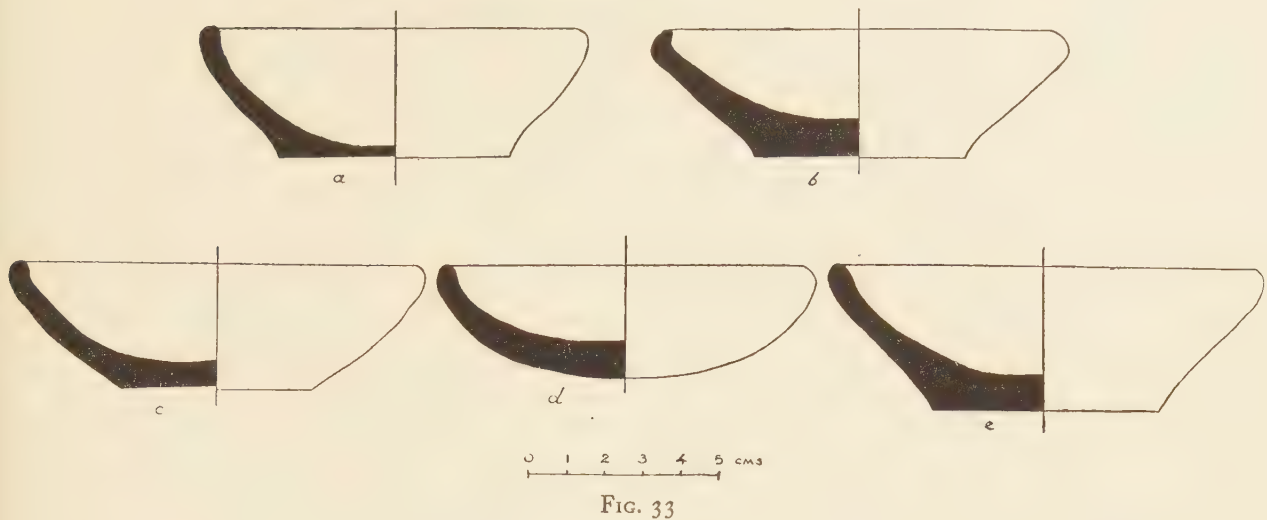


FIG. 32

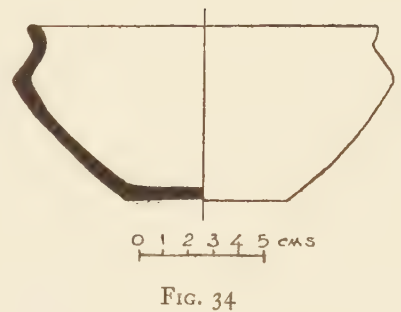
showing the main characteristics of the period; but the execution is rather crude and the ware less fine than one would expect.

The most pervasive type is a saucer with either a small flat or a low disk base, and walls rising at an obtuse angle to either a plain, incurving, or thickened lip (e.g. Fig. 33 *a* with plain lip, *b* with incurving lip, *c* with thickened lip). A variant of this type has a rounded base (Fig. 33 *d*). Some small bowls have ogive-shaped walls instead of straight ones (Fig. 33 *e*). The bowls of this type are, with few exceptions, of red or drab ware without a slip.

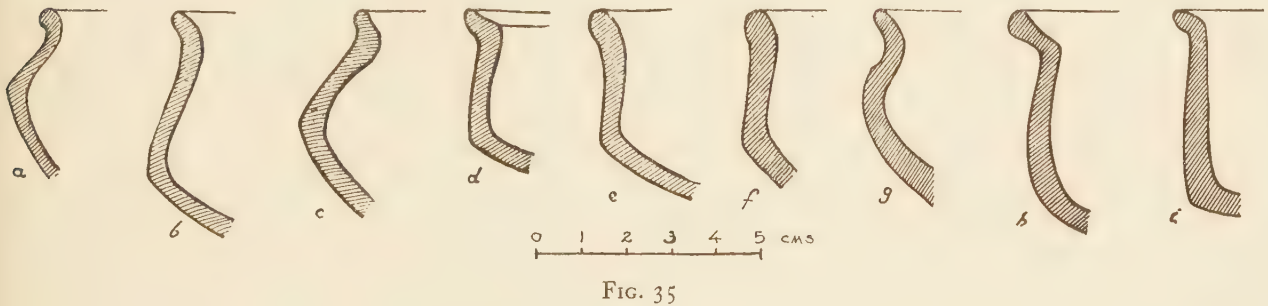
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Another quite frequent type is a small carinated bowl of fine buff ware with a red slip on the outside (Fig. 34). These must have been burnished but, owing to the dampness of the soil and the resulting corrosion of the surface, the burnishing marks can no longer be clearly distinguished; in the few cases where they are visible, they seem to represent wheel-burnishing. Occasionally wheel-combing occurs.



The rim usually curves outwards (Fig. 35 *a-d*), or is



merely thickened slightly on the outside (Fig. 35 *e, f*). Although not a single bowl of this type was found complete or reconstructable, it seems that their bases were disk-shaped, with the red slip continuing on the underside of the base.

The carination line is more or less sharp, but rounded in some specimens (Fig. 35 *g*); in others the carination is lost altogether, giving a deep bowl with rounded walls and strongly flaring rim (Fig. 35 *h*).

The bowl, Fig. 35 *i*, is of a cognate type, in which the graceful carinated form is replaced by straight walls with a sharp turn towards the base.

Bowl types represented by single specimens are: a carinated 'goblet' with trumpet foot (Fig. 36),¹ a large carinated bowl with handle and flanged rim (Fig. 37),² and a saucer with a hole in the centre (Fig. 38).

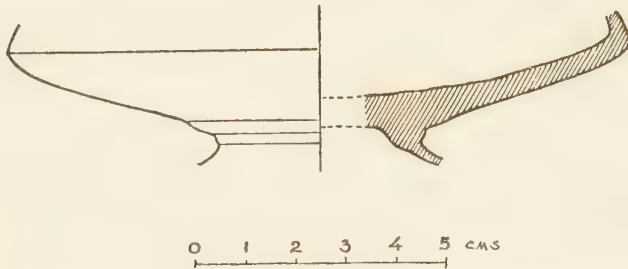


FIG. 36

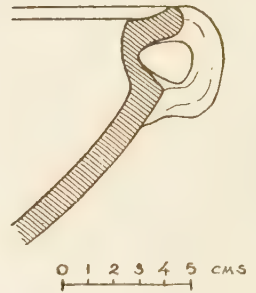


FIG. 37

The majority, however, of the bowl fragments are too small to be classified, and only a summary is possible of the general characteristics of these *disiecta membra*.

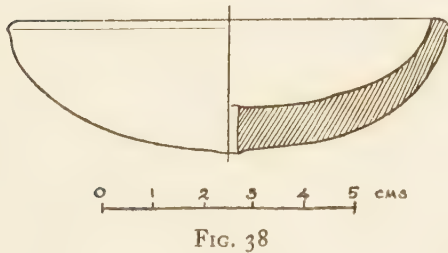


FIG. 38

Rims, unless they end in a plain lip, tend to curve outwards, or at least to be thickened on the outside. The strongly flaring rim is rarely met with (cf. Fig. 35 *h*), while the in-turned rim, so typical of the Middle Bronze II period, is represented only by the few examples shown in Fig. 39 *a-e*. Most of these fragments show that the bowls had a red slip on the inside. The sherd, Fig. 39 *f*, has a flat-topped rim projecting both inwards and outwards.

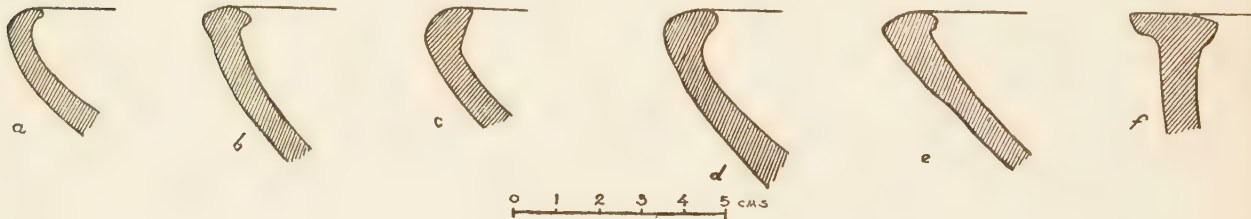


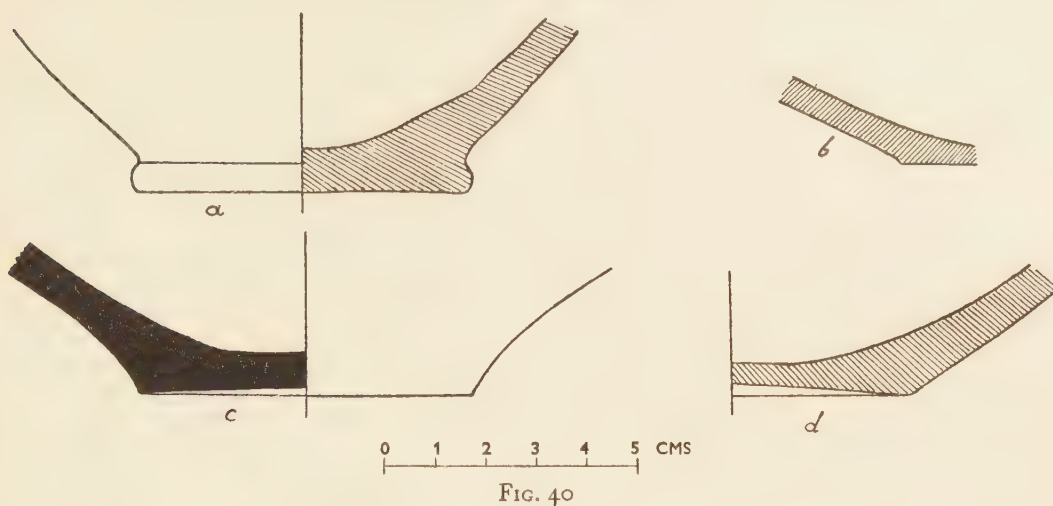
FIG. 39

Bases. The majority are disk bases, sometimes quite high (Fig. 40 *a*), at others hardly perceptible (Fig. 40 *b*). The disk bases are usually concave; but flat disks also occur. A number of bowls have flat bases, without the slightest indication of a disk. The bowl fragments, Fig. 40 *c* and *d*, and a few others, have concave bases to which I know no parallel in this period. A similar bowl base from Tell Beit Mirsim is of the Late Bronze II (Level C).³ Some bowls have ring bases; and a few trumpet-shaped bases also occur.

¹ Similar to the type shown in *TBM*, I, Pl. 43, 6, but with lower base. Cf. also *TBM*, I A, § 30.

² Cf. *TBM*, I, Pl. 11, 43.

³ *TBM*, I, Pl. 43, 12.



Several bowls (Pl. XI, 12, 14) have a string-cut base, which is an unusual feature in this period.

Knobs. A number of bowls show knobs on the rim, either on the lip or a little below it (Pl. X, 9-15). The knobs vary in form: some are large, rectangular or rounded; the majority are small and round. Two fragments have the knob on a ledge just below the rim (Pl. X, 14).

No. 158, with a red burnished slip inside and out, has a thorn-shaped knob (Pl. X, 10).

New types. Fig. 41, apparently a new type of bowl, has a thick ledge, square in section, running outside the rim, just below the lip. The existing fragments seem to show that instead of running all the way round the rim, the ledge ended in rectangular knobs (Pl. X, 8). The fragments of this type of bowl are covered with a red slip inside and out.

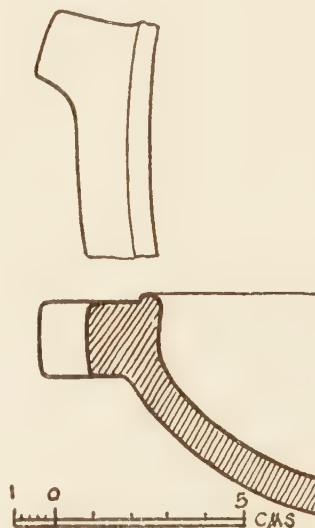


FIG. 41

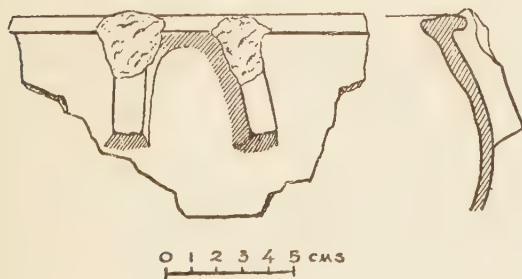


FIG. 42

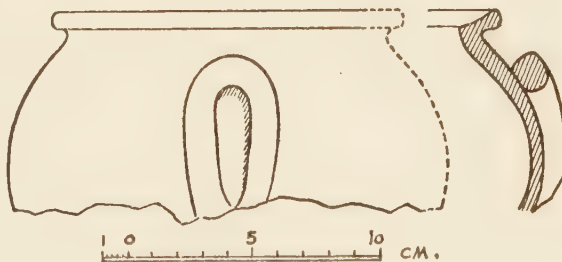


FIG. 43

The fragment shown in Fig. 42 (= Pl. X, 7) has no parallel. Two vertical ledges starting from the hole-mouth rim run down for about 4 cm. and then stop abruptly.

Another new feature is a vertical loop handle adhering to the body of a deep bowl with flaring lip (Fig. 43).

A very unusual bowl fragment (Pl. XII, 3) shows that the bottom was made out of a series of concentric coils. These are, however, visible on the inside only, the outside having been smoothed into an ordinary ring base.

No. 4 on Pl. XII is another fragment made out of coils of clay.

Flat dishes (Fig. 44 *a, b*), or rather pottery trays, have incised notches on the flat-topped and broad rim. The ware of these dishes is unusually hard which suggests that they were used as mortars. Fig. 45 shows a pottery tray with plain rim.

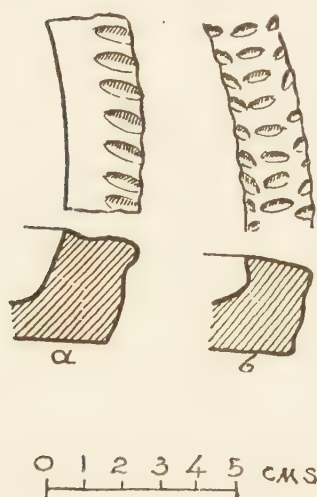


FIG. 44

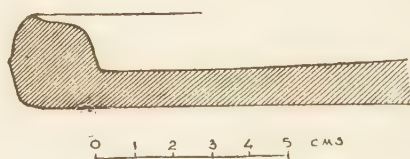


FIG. 45

Incised Potter's Marks

Many of the bowls have a large cross incised on the outside of the base (Pl. XI, 1-3). The incision was made with a sharp instrument before baking; the arms of the cross reach from edge to edge of the base. The lines are not always straight, and the angle at which they meet is not always a right angle.

The few crosses incised on bases which are known from other excavations, Gezer,¹ Beth Zur,² and Megiddo,³ for example, are also of the Middle Bronze II period; but on these sites they are smaller and occur only exceptionally, whereas at Nahariya they represent a well-established potter's mark, since they occur on scores of vessels, including a few jars as well as the bowls.

Other marks also found on bowls consist of short strokes incised across the rim. No complete bowls were found with such marks, but the fragments show that the marks were usually arranged in pairs along the rim.

One most unusual practice of the Nahariya potter was to incise a pair of lines on the handles of dipper juglets. Although, again, no complete juglet was preserved, not less than twenty-eight handles with such incisions were found. The lines are invariably on the upper part of the handle, spaced 10-15 mm. from each other (Pl. X, 17-25).

A few handles bore incised crosses, also rather unusual for the period. Other miscellaneous markings are shown on Pl. XI, 4, 6, 7.

¹ Macalister, *Gezer*, Vol. III, Pl. 152, No. 3 and Pl. 155, No. 12.

² Sellers, *Beth Zur*, p. 35, Fig. 28.

³ Shipton, *Notes on the Megiddo Pottery of Strata VI-XX*, description of Pl. 7, No. 11.

Miscellaneous

Painted ware. Fig. 46 is a fragment of a thick-walled bowl painted inside and out with a coarse ladder ornament on dark brown and red. A handleless jar with a small convex base (Fig. 47) shows a series of red and black bands on the shoulder.¹

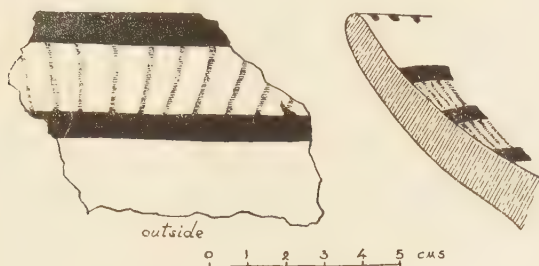


FIG. 46

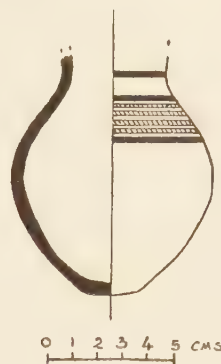


FIG. 47

Otherwise painted ware was rare, as on other Middle Bronze II sites; a few other stray sherds showed horizontal lines in dark red or brown.

Lamps. Several lamp fragments were found (Pl. XI, 8-11). They are of the usual Middle Bronze II type, with slightly pinched nozzle. The ware varies from light buff to reddish-brown.

Two lamps were of the four-nozzled type (Pl. XI, 9-10) known from the Early-Middle Bronze period. The ware of these, however, is typical of Middle Bronze II, and shows that the four-nozzled type of lamp survived at this site well into the later period.

Various pottery objects. Part of a ladle with pinched lip, perhaps used as a crucible.

Fragment of a bowl with incised figure of a bird (Fig. 48).

Fragment with applied bird (?) (Pl. XII, 9).

A series of pottery disks of a type frequently found in other excavations. No explanation of these simple pottery objects seems to be forthcoming.

Fragment of a pot with projecting ledge pierced by a series of holes; of fine buff ware, dark-red slip, burnished (Pl. X, 6).



FIG. 48

Objects other than pottery

1. Silver figurine of Ashtoreth (see above, p. 26).
2. Bronze adze, found at the lowest course of the south wall of Room I (see Pl. V, 1, showing the adze *in situ*).
3. A bronze chisel, square in section, found at floor VII.
4. Fragment of a bronze sheath from a dagger (?).
5. Rim fragments of a large stone vase, with rim profiled on outside.

¹ For a jar identical in form and decoration from Ras el-'Ain, cf. *QDAP*, Vol. V, p. 123, No. 29.

6. Fragment of a basalt mortar.
7. Thirty-seven beads, mostly of banded agate, some of carnelian and translucent crystal, one of silver (Pl. XII, 2). All were found in the main room, below the lowest occupation floor, i.e. below floor VII.
8. An oblong pendant of carnelian.
9. Silver bead and ear-ring (Pl. XII, 1).
10. A few flint implements. They are dealt with by Mr. J. Waechter in the note which follows on page 43.

Conclusion

In the excavation of so small a *tell* as that of Nahariya, belonging to so well known a period as the Middle Bronze II Age, the main interest naturally lies in the character of the building. Luckily enough, the identification presents no difficulty: the abundant fragments of incense burners, mainly heaped in one dump outside the building, the clay figurines, and, first and foremost, the miniature vases and bowls, clearly point to the sacred character of the building. The clay doves and the silver figurine would suggest that the temple was dedicated to the cult of Ashtoreth.

During the course of its existence the main room of the building underwent one complete reconstruction and a number of subsequent enlargements, when additional rooms were built at each end. The close succession of floors within the main room shows that this was in continuous occupation throughout these changes.

The pottery belongs entirely to the Middle Bronze II period, except for that found in Room II and some sherds in the upper layers of Room I, which are of a somewhat later date. It is, however, to be remarked that a few pottery types occurred which belong to earlier phases of the Middle Bronze, notably the ridged jar rims (first identified by Albright in levels G-F of Tell Beit Mirsim), the four-nozzled lamp, of which two fragments were found, and the combed decoration (Pl. IX, 10-11, 13-17) which, although occasionally found in Middle Bronze II, is more typical of the earlier phases.

The bulk of the pottery, characterized by the Tell el-Yahudiyeh ware, the profiled jar rims, double handles, red-slip carinated bowls, disk bases, flaring cooking-pot rims, wheel-combing, and many other details, are of the Middle Bronze II B phase, or of the late eighteenth and seventeenth centuries B.C., which is the main period of the occupation of the temple.

The site yielded some new pottery types, such as the hole-mouth rims of jars, knob handles of bowls, and others. There is reason, further, to think that some of the characteristic pottery marks are peculiar to the site, e.g. the incised crosses on bases and the double incised lines on handles and rims. But the most noteworthy of the pottery types found in and around the temple are the miniature vases or model pots. The figurine of Ashtoreth, quite unique in being made of silver, the incense burners, and the pottery doves give a glimpse into the religious life of the inhabitants who chose this isolated spot on the sea-shore for building a shrine to their goddess.

No traces of other buildings were found on the *tell*, which cannot, therefore, have belonged to a settlement. It follows that the temple was frequented by worshippers from



1. View of tell before excavation



2. General view of temple, looking SW. Room I to left (note row of column bases); Room IA to right

TEMPLE AT NAHARIYA



1. General view, looking west. Room II in foreground, Room I and IV in background



2. East wall of Room I, from inside



3. North wall of Room I, from inside



1. North wall from outside, showing junction of Room I (to left) and Room IA (to right)



2. South wall of Room I with door



3. West wall of Room I from outside, showing blocked entrance



1. Eastern part of Room I (to right) and Room II (to left). Note secondary wall in foreground



2. Interior of Room II, looking north

TEMPLE AT NAHARIYA



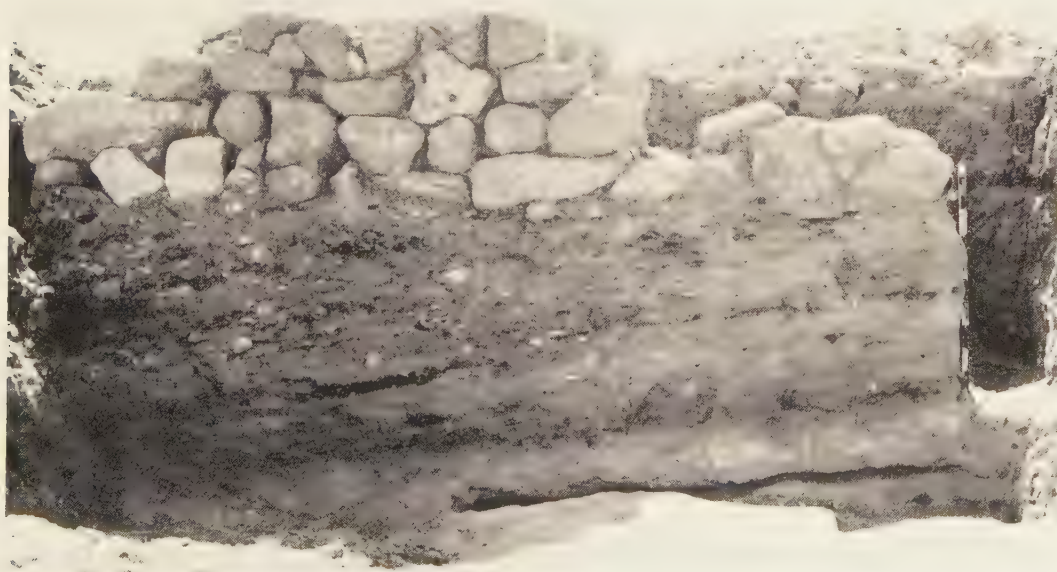
1. Adze *in situ* (scale of cms.)



2. Stratified debris inside Room I. Note animal bones in *kurkar*, below (p. 10)



3. South-east corner of Room II with silo



4. West wall of Room IA, from outside, with strata of 'Locus B' debris below



1



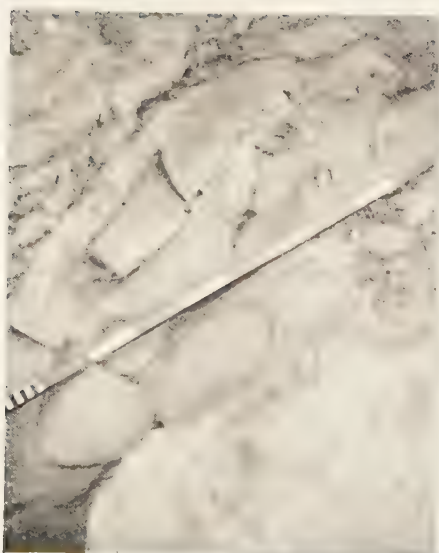
2



3



4



5



6

1. Bowl *in situ*, on floor VI
3. Traces of hearth and incense burner on floor V (cf. p. 12)
5. Storage jars *in situ* (cf. p. 7)

2. Fragments of incense burners in 'Locus B'
4. Broken incense burner on floor VII
6. NE. corner of Room I, outside. Note the strata of 'Locus B' at right and the courses of Room IA wall above

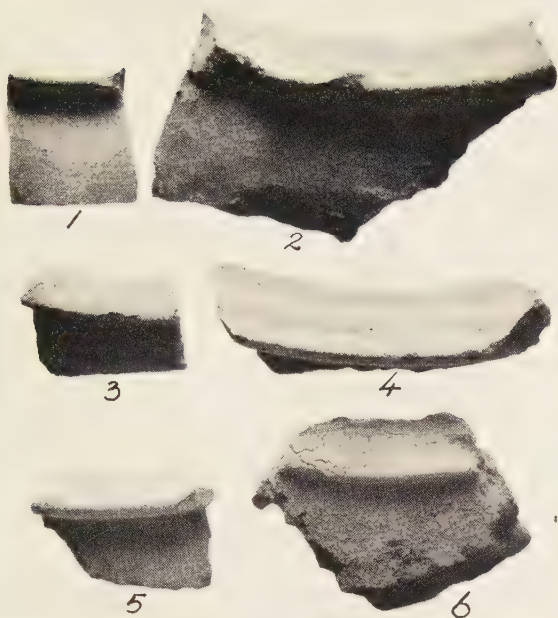


FRAGMENTS OF INCENSE BURNERS

TEMPLE AT NAHARIYA



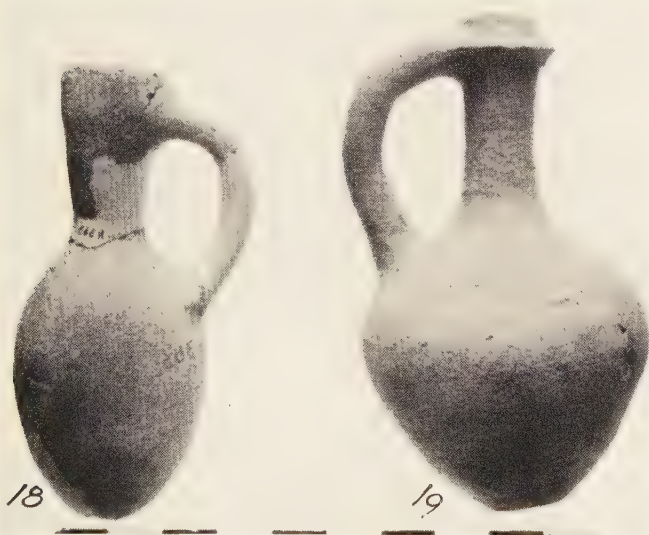
MODEL OFFERING POTS (scale of cms.)
 Nos. 30-1 are from Meydum, Egypt. No. 32 is from Megiddo



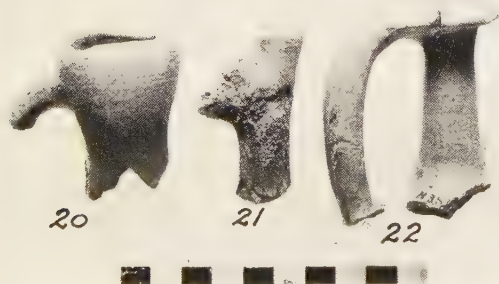
'Holemouth' rims (scale of cms.)



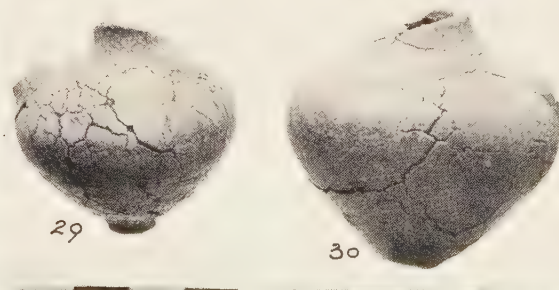
Combed decoration (scale of cms.)



Juglets (scale of cms.)



Juglets (scale of cms.)



Tell el-Yahudiyeh ware (scale of cms.)

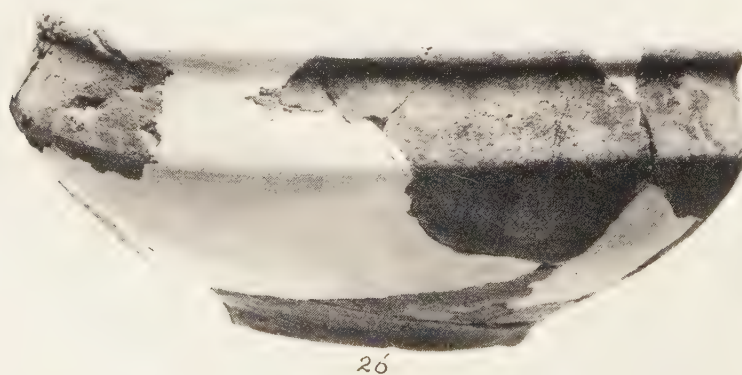


Nos. 1-8. Fragments of cooking pots and bowls (scale of cms.)

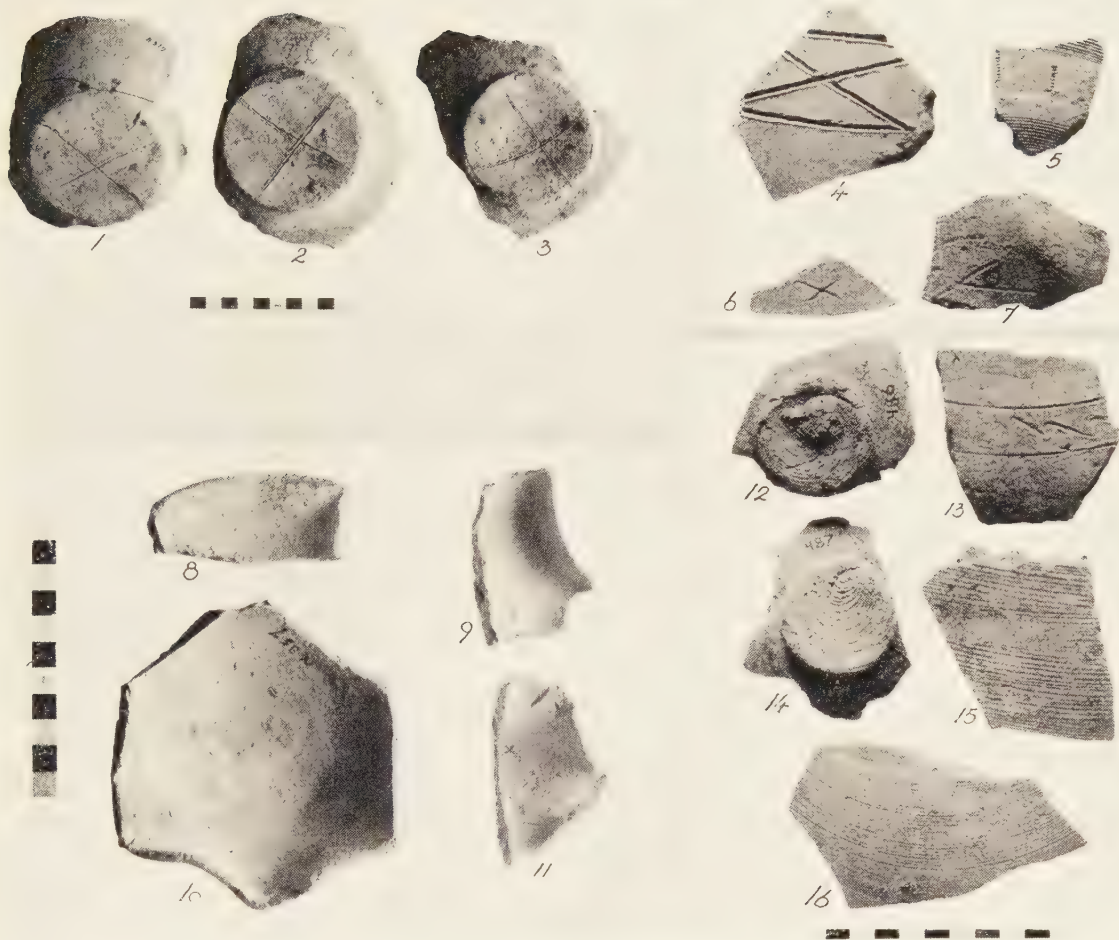
9-15. Rims of bowls with knobs (scale of cms.)

16. Moulded cross on base of cooking pot (scale of cms.)

17-25. Handles with incised lines (scale of cms.)



No. 26. Reconstructed bowl (scale of cms.)



Nos. 1-3. Crosses incised on bases of bowls (scale of cms.)

8-11. Fragments of lamps (scale of cms.)

4-7. Fragments with incised marks

12-16. Stringed-cut bases and combed ware (scale of cms.)



Nos. 17-26. Objects found before excavation (scale of cms.)



Nos. 1-2. Silver ear-ring and beads (scale of cms.)
 3-4. Pottery fragments showing 'coil' technique
 5. Silver figurine of Ashtoreth
 6. Bronze figurine (scale of cms.)

7-8. Clay figurines
 9. Potsherd (p. 39)
 10-13. Clay figurines of doves (13, handle fragment)

the neighbourhood. The nearest Middle Bronze Age site is ez-Zib, the ancient Akhzib, some 4 km. to the north; but the temple may also have served the needs of nomadic tribes that roamed in the vicinity.

Why the temple was erected on just this spot was only discovered a few days after the excavation had been completed. An inquiry into the water resources revealed that a spring of sweet water gushed forth in the sea just opposite the mound, about 2 m. from the shore and below the present water-level. Although such phenomena are not unknown in Palestine, and fresh water is found at a few places along the sea-shore, it is quite possible that the occurrence of a spring beneath the sea was considered something not far short of a miracle by the people living in the neighbourhood in ancient times; and they may well have dedicated the temple to the deity who dwelt in the spring or caused it to emerge just where it did.

Geological investigation, it is true, might indicate that the coast has receded in historical times and that the spring was clear out of water during the Middle Bronze Age; but even so we should still have reason enough to connect the building with the source. The question of water-supply has always been very important in Palestine, and it was surely the presence of the spring, whether in the sea or out of it, that suggested to the ancient builders to select the nearest natural hillock as a suitable site for their temple and to dedicate it, may we add, to *Ashirath yam*, or Ashtoreth of the Sea.

I. BEN-DOR.

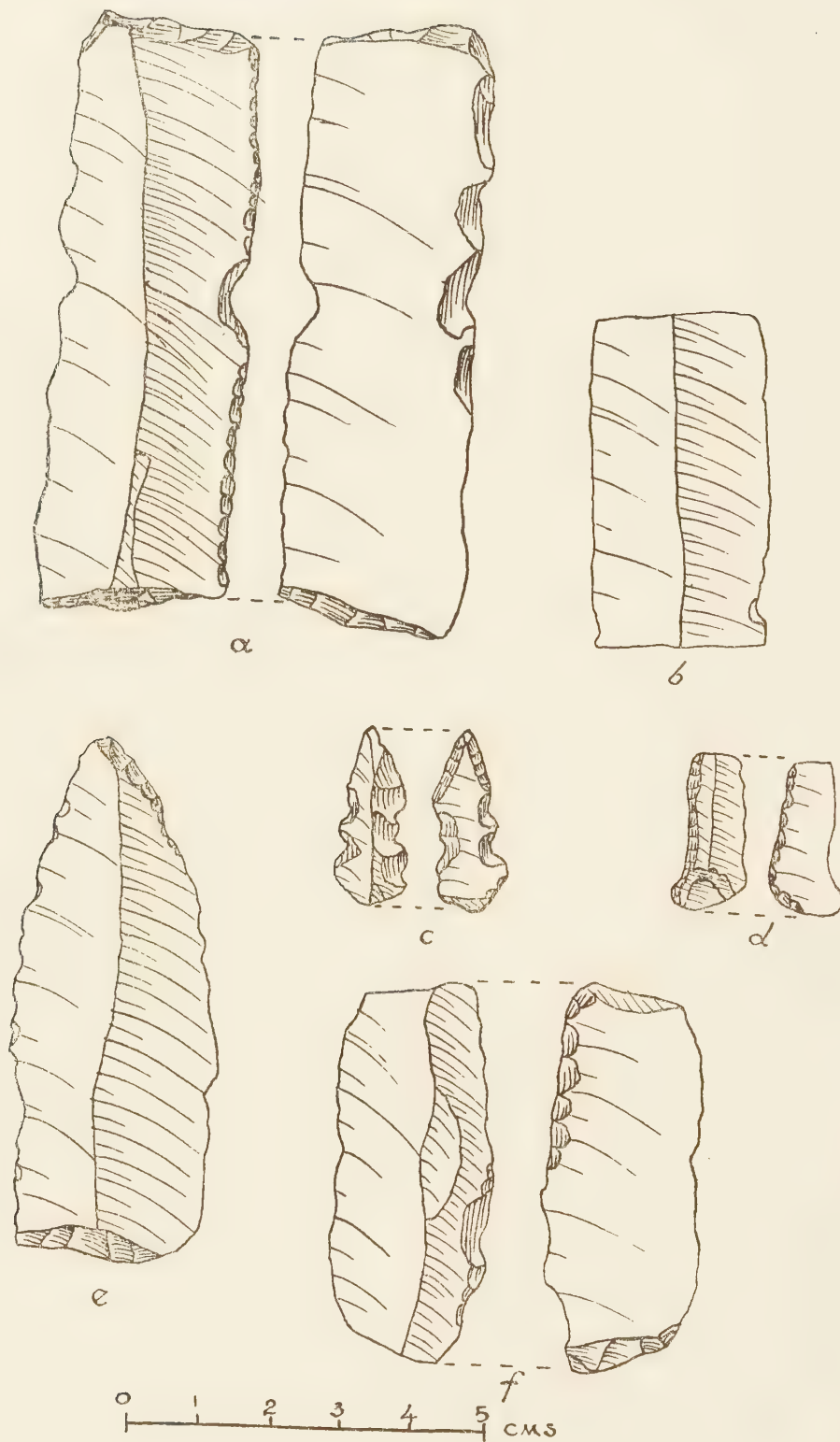


FIG. 1

NOTE ON THE FLINTS FROM NAHARIYA

THE material is mostly a fine-grained chert, but some of the smaller pieces are of flint. They are illustrated in Fig. 1.

Arrow-heads. Only one specimen was found (*c*) and it is unfortunately broken; the whole of the base is missing, but what remains shows clearly that it is of the well-known late Natufian type; there are a series of notches up both edges and it is retouched on both sides of the tip on the bulbar face; on one side of the upper face there is an attempt at a flat retouch.

Sickle-blades. Two specimens only were found; the first (*a*), which is a section of a long parallel-sided blade, has a central ridge, is squared at both ends, and has a coarse flat retouch on the bulbar face; there is a nibbled retouch due to use in the edge and lustre. Length 8.5 cm., width 3 cm.

The second specimen (*e*) is pointed, with the butt retouched, but no blunting on the back except for the last third towards the tip; both edges show signs of use and lustre. Length 7.2 cm., width 2.9 cm.

Backed blades. One is small, made of flint and much weathered (*d*), it has a *rabattu* retouch down the back and one end has been squared. The second (*f*), of chert, is larger and has a blunting retouch down the back; half of this is on the upper face and the remainder on the bulbar face.

Blade section (b). A section similar to those mentioned above, there is no retouch and no lustre; the ends have been snapped neatly across.

Blade flakes. Four specimens, one of flint and the others of chert; they are merely narrow flakes.

Flakes. Three flakes, one rather large, 8 × 4 cm., the remaining two of no significance.

Although the material from the excavation of the temple at Nahariya is scanty, it is always of great interest to have flints of this period which are accurately dated by associated pottery. In the past excavators have been rather inclined to disregard flint implements from these later periods, which in consequence have been rarely illustrated or drawn. Neuville has shown¹ that there was a type of sickle-blade which was characteristic of the Middle Bronze Age, but it has not always been possible to decide exactly which type is to be associated with which stage of the Middle Bronze. We know that the Cananean blade is characteristic of most of the Early Bronze Age, for it has been found in a number of stratified sites, such as Jericho and Ras el-'Ain; and we also know that it is succeeded by a broad, almost square, blade with retouch on the back and across the ends, well known from such sites as Tell Jemmeh and Gezer. But at what point the Cananean blade disappeared we cannot say; it is missing in this site, but the sickle-blades are not quite like the more usual Middle Bronze Age type, although they are tending towards them. If a little more care is taken by the excavators of the later sites, then we shall be in a position to date our flint implements accurately right up to the end of the Middle Bronze.

J. WAECHTER

¹ R. Neuville, 'Les Débuts de l'agriculture et la faucille préhistorique en Palestine', in *Journal of the Jewish Palestine Exploration Society*, Jerusalem, 1934.

AN IRON-AGE TOMB AT MEQABELEIN

WHEN examining a Roman tomb in this village which had been robbed by stone-cutters, Ibrahim abu Jaber, Assistant Inspector to the Department, observed the entrance to another cave only a few metres away. He reported the matter, and although the cave did not seem very promising, having obviously been open for a very long period of time, I decided to clear it as quarrying operations were soon going to demolish it anyhow. The result was surprising, as the contents had not been disturbed since Roman times, and many new pottery types of the late Iron Age and a number of interesting small objects were recovered. The tomb had been robbed in Roman times, as was indicated by the presence of a few Roman ribbed sherds and a bead which must be of the same date; presumably it had been open ever since. Again the work of clearing, cleaning, and repairing was carried out voluntarily by Hasan Awad el Qutshan, to whom I tender my best thanks for his services.

The tomb itself was very simple in plan, a 3 m. square chamber with benches round three sides and a shallow gangway in the centre; it was originally approached by a shaft which had been cut away by quarrying. There are indications of many more tombs, either Roman or Iron Age, in the vicinity, as well as a number of rock-cut cisterns also of the Iron Age, from one of which we recovered fragments of some large water-jars.

Meqabelein (map ref. 146.236) has so far been completely missed by surveys of Trans-Jordan; the modern village is small but growing, and the ancient settlement starts on the north fringe of it. This was much larger than the present village, and included several large caves actually within the area of the ancient village itself. The most interesting remains are a large fort of megalithic type of building, and a circle and part of a road of contiguous upright stones; there are, I believe, indications of other such circles in the vicinity but I have not examined the site very closely. The inhabitants told me that up to about ten years ago the upright slabs of the circle and road were continuous and unbroken, but that stone-cutters had thrown many down and broken them up. The rock in this neighbourhood is a very fine white limestone, much in demand for building in 'Amman, and the whole hill-top is being rapidly cut away. In a rapid and superficial examination I found a few Early Bronze sherds, but this site and its twin (hence the dual form of the name) would repay a more careful survey.

Dating. In the pottery two bowls, Pl. XVII, 11 and 16, are almost identical with two in the Sahab tomb (*QDAP*, Vol. XIII, Pl. XXXV, 1 and 6); some other forms are closely paralleled in the 'Amman tombs (*QDAP*, Vol. XI, pp. 67 ff., nos. 24 and 36). There is also a tripod cup, two exceptionally long-pointed bottles, and a small variety of water decanter. The rest of the forms are new, some not only to Trans-Jordan but to Palestine also. The best forms for dating purposes are the imitation alabastrons (no. 38 from 'Amman tomb A may be an incomplete specimen), which in Egypt are well dated to the seventh-early sixth centuries B.C., a dating that would fit the fibulae well and also the seal no. 33 (see below). The group in general gives the impression of being later

than the Sahab and 'Amman tombs, but the fact that some pottery forms are common to all three shows there is no gap in time. Perhaps the latter half of the seventh century would be a not-unreasonable suggestion.

Inventory of Objects

Bronze

1. Heavy fibula with a sharp right-angle bend and thick-ribbed decoration, complete with pin (Pl. XIV, no. 1).
- 2-9. Fibulae of various types, one with complete pin, others with parts of pins (*ibid.*, nos. 2-5).
10. Large bowl, the surface rather pitted by oxidation; no decoration of any kind (*ibid.*, no. 6).
11. Small bowl (*ibid.*, no. 8).
12. Mirror, handle missing (*ibid.*, no. 9).
13. Heavy anklet.
14. Pair of bracelets (*ibid.*, nos. 7, 10).
15. Three smaller bracelets.
16. Two kohl sticks, the end hammered out to make a small spatula (*ibid.*, nos. 11-12).
17. Two kohl sticks, broken.
18. Strainer, crushed and broken anciently: the handle undoubtedly belongs, though it does not actually join on (cf. *Beth Pelet*, Vol. I, Pl. XLVII, 817) (*ibid.*, nos. 15-16).
19. Long piece of square section bronze, one end curved over like the dipper handle, the other with a punched hole in which rests a small bronze rivet (*ibid.*, no. 13).
20. Fragments of bronze dishes (?), too smashed to be restorable.
21. Fittings from a box (?) or dagger handle (?) (*ibid.*, no. 14).
22. Ear-rings and rings of various types (Pl. XV, nos. 1-2).
23. Small bell (?).

Silver

24. Pair of heavy ear-rings of coarse granular work (*ibid.*, no. 4).
25. Ear-ring, the thick part made of five strands of wire soldered together and decorated with fine granular work (*ibid.*, no. 5).
26. Finger-ring, the main part made up of five strands of wire exactly as the ear-ring 25, with the same decoration. The bezel is a round piece of silver on which is soldered an eight-petalled daisy, each petal and the centre being made of flat metal and applied separately. A piece of coloured glass was originally mounted in each petal and the centre; but the only ones now remaining are the piece in the centre and the filling of one petal. One petal is missing altogether (*ibid.*, no. 6).

Iron

27. Leaf-shaped arrow-head.
28. Knife, riveted handle (*ibid.*, no. 7).
29. Heavy knife, round handle.
30. Pieces of round iron (*ibid.*, no. 8).
31. Pieces of saucer (?) or lid (?).

Beads

32. Onyx, carnelian, quartz, soapstone (?), blue glass, banded black, white, red, and yellow glass, green and white glass eye bead (*ibid.*, no. 3).

Varia

33. Chalcedony seal, eight-sided, in a bronze swivel mount; through the suspension loop is passed the pin of a semicircular bronze fibula. This way of wearing the seal pinned on to the clothes has not, so far as I am aware, been noted before in this period. The seal impression shows a priest or worshipper on the left, standing, wearing a long skirt right down to the ground, a round head-dress with either a lock of hair or a fillet hanging down behind. He has a long beard, and his right forearm is raised in the attitude of worship. In front of him is a fenced enclosure in which are three upright poles, the nearest being capped with a spike on top of a globe, and a small cross-piece just below. Above all is a crescent moon lying on its back (Pls. XIII, no. 2, XV, no. 9).
34. Small cylinder seal of pink limestone mounted on a piece of looped bronze wire with the ends turned over. The impression shows a central hero figure with both arms upraised and grasping in each hand the hind leg of an antelope, which are thus being held upside down. There are no indications of dress on the human figure, but he seems to wear a fillet round his head. The rest of the field is occupied by a strange upright emblem, and beside it a globe with two lines projecting from its top and bottom (Pl. XV, no. 10).
35. Black and white opaque glass kohl pot of alabastron form, but with open instead of knob handles; ribbed from near the base to the rim, the ribbing producing a chevron pattern in the black and white bands. The surface is eroded and rough (Pl. XV, no. 11).
36. Small vase of dark-blue, light-blue, and yellow opaque glass, knob base, two handles; there is a narrow wavy band of light blue and yellow between plain yellow bands just below the shoulder. The vase is crudely made but in perfect condition, colours and surface being entirely unaffected in any way (Pl. XIII, no. 3).
- 37 and 38. Two model horses and riders in red pottery; the bodies of horses and riders have been individually modelled, but the head and face of the riders seem to have been pressed in a mould, though the very fine modelling of the features could, of course, equally well have been done separately. Both were painted in black and white, but one had a red wash which has flaked off, taking most of the paint with it. The perfect specimen shows the rider's pointed cap outlined in black and white, with a white band between black across the forehead and a black splodge above, clearly intended to represent some form of decoration. The eyes are outlined in black, with white irises and black pupil, and a suggestion of eyebrows incised above. Ears, nose, mouth, and chin are carefully modelled (no beard is shown), and long hair, or part of the head-dress, hangs down behind the ears as far as the shoulder. Across the chest and back is a broad horizontal white band between black; legs and arms are very crudely made and the body is little more than suggested. The right arm is down on the horse's neck and holds what may be a whip, indicated by a strip of clay extending across the animal's chest to its left leg. The left arm is raised to the level of the horse's ear and holds what must be intended for the end of the rein; probably then as now only a single rein was used. The horse trappings are rather crudely shown in black and white, and consist of a band passing round the eyes (but not behind the ears), one part going along the lower jaw and up over the nose, the other crossing on the forehead and passing down over the nose to the lower jaw. The area between the straps on the upper jaw is painted white, and there are a series of white blobs at various points along the straps. The upper edge of the mane is painted black, and where it widens out over the forehead there are more white blobs, all of which are probably harness decoration. The eyes have the same treatment as the rider's, and are applied separately, as is also the front part of the mane. The tail curves down between its legs.

The other example is substantially the same, except that the horse's mouth and nostrils

IRON-AGE TOMB, MEQABELEIN

are indicated, and the rider's right arm is down by his side, with the whip curling round the horse's flanks. The head-dress is rather more pointed, but the modelling of the face is equally good (Pls. XIII, no. 1, XV, no. 12).

39. Small incomplete alabastron; from the quality of both the alabaster and the work, this must be an importation (Pl. XV, no. 13).
40. White limestone saucer, undecorated (*ibid.*, no. 14).
41. Rectangular pallet, alabaster, slight depression worn in one side (*ibid.*, no. 15).
42. Rectangular pallet, limestone, slight depression worn in one side.

Pottery. With each new tomb group discovered in Trans-Jordan, we realize afresh how little is known of local ceramics; the 'Amman tombs found in 1941 gave us our first complete examples of Late Iron Age ware, producing many forms new to Palestinian archaeology, and many local variants of known forms. The Sahab tomb discovered in 1945 confirmed and amplified the findings of the 'Amman groups and introduced more local variants, and now this group from Meqabelein (both this site and Sahab are close to 'Amman) adds many new forms to the Trans-Jordan corpus, while at the same retaining a link with the previous groups.

One form, nos. 44-7 (Pl. XVI, nos. 2-5), I can at present parallel only in Egypt,¹ where, however, it is dated to the twentieth dynasty which is impossible for us. The decoration on these jars is typical of the Late Iron Age in Trans-Jordan, but no amount of isolated sherds could give any hint of the shape. Nos. 48 and 49 (*ibid.*, nos. 8-9) are new forms for which I cannot find any parallels; the ribbing near the knob base is most curious. There is what may be an incomplete specimen of no. 43 (*ibid.*, no. 1) from Tell el Far'a,² where it is dated to the twenty-second dynasty, again too early for us. Many examples of alabastrons could be quoted from Egypt, but few pottery imitations; in *Hyksos and Israelite Cities*, Pl. XX A, they are found together with fibulae of the same type as ours, and dating to the twenty-sixth dynasty. The pointed bottles nos. 57 and 58 (Pl. XVI, nos. 17-18) are exceptionally elongated, while the water decanter no. 59 (*ibid.*, no. 6) is a very small variety. The two jugs nos. 60 and 62 (*ibid.*, nos. 19-20) are of quite remarkably soft firing, particularly no. 62 which is almost unfired; so much so that in drying out it just cracked to pieces. There were remains of other bowls among the sherds (no. 84) of the same low firing, too fragmentary and friable to be reconstructed. The black-polished dishes nos. 63 and 64 (Pl. XVII, nos. 1-2) are well known in red; no. 64 has a well-turned base, perhaps in imitation of a metal form. The very open bowl or dish no. 67 (Pl. XVII, no. 17) of thin red ware is new, and shows what Trans-Jordan potters were capable of throwing even before the Nabateans brought such ware and forms to perfection. The rest of the bowls call for no special comment, though some are variants on known forms, but the lamps are different from any in the 'Amman or Sahab groups, and relate more to those of the Persian period in Palestine, being large and very flat, and quite extraordinarily badly made. No. 83 (Pl. XVII, no. 7) is new, and interesting on account of the irregularly spaced ribbing on the body; it is curious that large vessels such as this and 43 (Pl. XVI, no. 1) should have ring bases, though 43 could not possibly stand on its base.

	Description	Body	Fire	Slip or wash	Remarks
43	Jar, bottle neck, single handle	Buff	Med.		(Pl. XVI, no. 1)
44	Pointed jar, no handles	"	"		Black and white bands (<i>ibid.</i> , no. 2)
45	" " "	Red	"		Red and black bands (<i>ibid.</i> , no. 3)
46	" " "	Pink	"		Traces of black and white bands (<i>ibid.</i> , no. 4)
47	" " "	Brown	"		(<i>Ibid.</i> , no. 5)
48	Large flask, no handle, knob base, ribbed	Buff	"	Buff	(<i>Ibid.</i> , no. 8)
49	" " " "	"	"	"	(<i>Ibid.</i> , no. 9)

¹ Petrie, *Tell el Yehudiyeh*, Pls. XII and XIV.

² Petrie, *Beth Pelet*, Vol. I, Pl. XXXIX, no. 63 κ.

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	Description	Body	Fire	Slip or wash	Remarks
50	Large dipper flask	Brown	Med.		Pinched spout (<i>ibid.</i> , no. 10)
51	" " "	Black in- side, pink outside	"		Two other examples (<i>ibid.</i> , no. 11)
52-6	Imitation alabastrons	Brown	"		Various sizes (<i>ibid.</i> , nos. 12-16)
57-8	Pointed bottles	Buff	Hard	Cream	Black bands; exceptionally long examples (<i>ibid.</i> , nos. 17-18)
59	Small water decanter	"	Med.	"	(<i>Ibid.</i> , no. 6)
60	Jug	"	Soft	Brown	Black bands (<i>ibid.</i> , no. 19)
61	Squat vase	Pink	Med.	"	(<i>Ibid.</i> , no. 7)
62	Jug, trefoil lip	Buff	Very soft	Red	Traces of burnish (<i>ibid.</i> , no. 20)
63	Small dish	Black	Med.	Black	Polished inside (Pl. XVII, no. 2)
64	" "	"	"	"	" " fragment of a second example (<i>ibid.</i> , no. 1)
65	" "	"	"	Dark brown	(<i>Ibid.</i> , no. 3)
66	" "	Buff	Soft	Red	(<i>Ibid.</i> , no. 4)
67	Flat dish	Red	Med.	Red	Traces of burnish (<i>ibid.</i> , no. 17)
68	Small dipper flask	"	Soft	"	Fragmentary (<i>ibid.</i> , no. 6)
69	Bowl	Buff	Med.	Pink	Traces of burnish Wheel burnish Coarse wheel burnish One other example Very coarsely made } (<i>Ibid.</i>, nos. 8, 10-16, 18)
70	"	Black	"	Red	
71	"	Pink	"	"	
72	"	Buff	"	Pink	
73	"	Brown	"	Red	
74	"	Black	"	Brown	
75	"	Buff	"	Pink	
76	"	"	"	"	
77	"	"	"	"	Very coarsely made (<i>Ibid.</i> , no. 9) (<i>Ibid.</i> , no. 5)
78	Tripod cup	Red	Soft	Red	
79	Lamp	Pink, black core	Med.		
80	"	Pink	"		Very coarse ware
81	"	"	"		
82	" fragments	"	"		(Ibid., no. 7)
83	Jar, one handle, ring base	Red	"		
84	Various sherds				

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MEQABELEIN TOMB
From Iron Age tomb at Meqabelein
(*Natural size*)



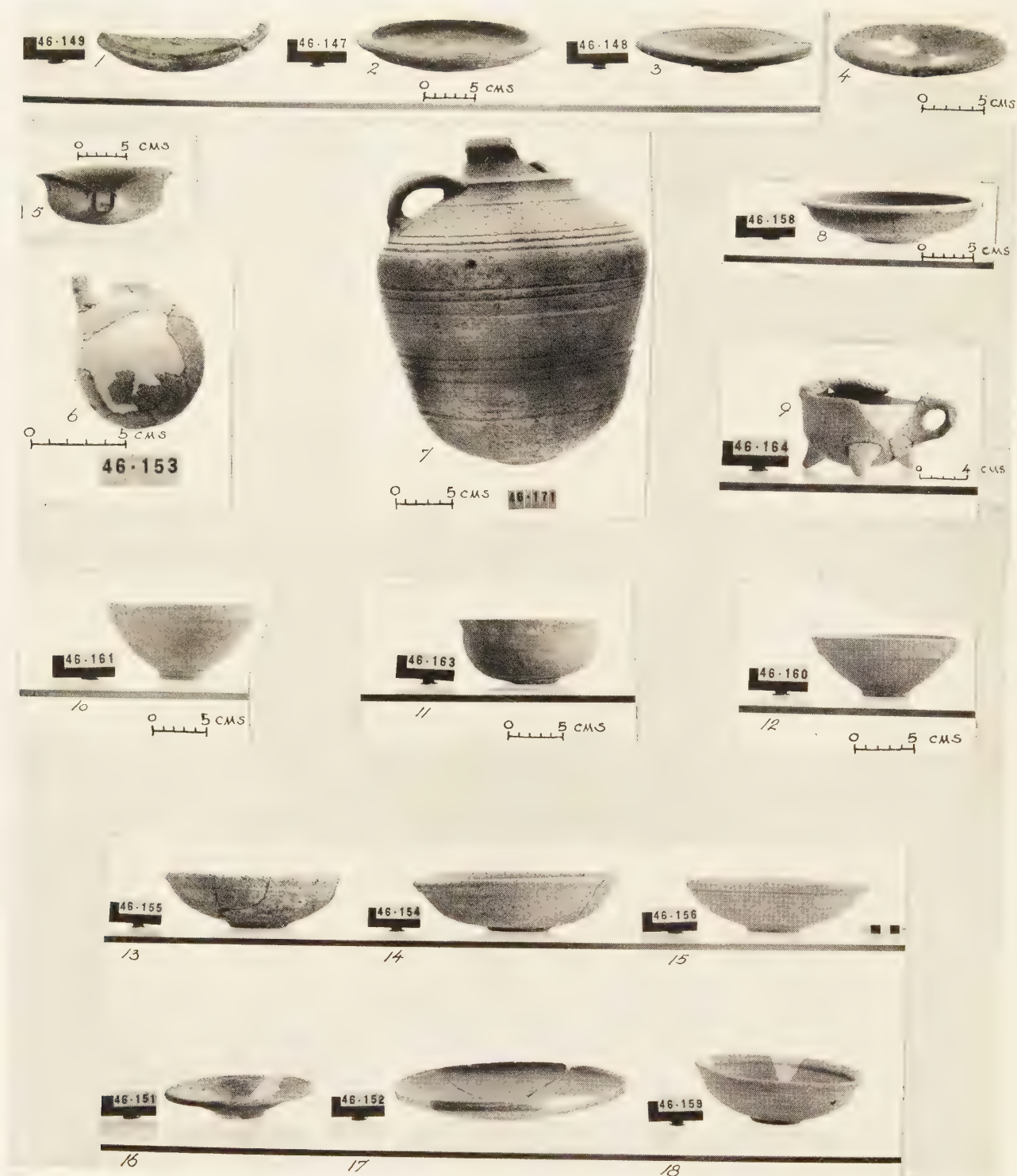
Bronze Objects
MEQABELEIN TOMB



Various Objects
MEQABELEIN TOMB



Pottery
MEQABELEIN TOMB



Pottery
MEQABELEIN TOMB

ORIENTAL ELEMENTS IN THE ART OF PALESTINE IN THE ROMAN AND BYZANTINE PERIODS¹

C. 2. *Plant Ornament*

(d) *Original Developments of Plant Ornament*

IT has been already observed by Watzinger² that in the time of Herod Jewish artists transformed the current floral ornament of the Late Hellenistic period into something new and unclassical, apparently under the stimulus of Alexandrian art.

Egyptian influence is unquestionably present in many monuments. On the tympanum of the Tomb of the Judges (Pl. XVIII, 1) the acanthus cup below the central leaf resembles a limestone plaque of mixed Egyptian and classical style, found at Ophel³ and dated to the Ptolemaic period. We find a similar ornament on one of the sarcophagi discovered in the 'Tomb of Herod's wife' at Jerusalem⁴ and on certain ossuaries on which palm-branches are represented.

The point of departure of the new type of native ornament is the technique of drawing in soft stone designs by compass and ruler and gouging them out with a chisel (*Kerbschnitt*).⁵ This technique can be observed already in the Ophel plaque mentioned above; it is exclusively used in ossuaries. There it was transferred from geometrical rosettes to stylized plant leaves. Each leaf became a long and narrow incision, formed by two sharply cut planes (cf. Pl. XVIII, 2), while the whole design forms a palmette branch ending in a flower. Transferred again from the geometrizing to the naturalistic floral decoration and freed from the trammels of a confined space, this technique produced a deep indentation with sharply cut points (*QDAP*, Vol. XIII, Pl. XLVI, 4-5). The resulting effect makes the leaves stand out in outline and not as a series of surfaces. At the same time they are spread out flatly to cover as much ground as possible. Parallel technical conditions have produced similar results in Sassanian stucco.⁶

On the tympanum of the Tomb of the Judges (Pl. XVIII, 1) the sharpness of the leaves and the deep cutting in the centre of each produce an outline effect. The leaves are cut in very low relief, and spread out over as much ground as possible. Other contemporary monuments from Jerusalem show the same peculiarities: e.g. the ossuary of Nicanor's children, found on Mt. Scopus,⁷ where a geometric element is added in the triangular interstices between the leaves. Further examples are: the tympanum of the 'Tomb of Jehoshaphat'⁷ and the façade of the Tombs of the Kings (Pl. XVIII, 6).

This kind of deep-cut leaves is not confined in the first century to Judaea alone. We find it also in the Nabataean temples at Si',⁸ and in Parthian Assur.⁹

¹ Concluded from *QDAP*, Vol. XIII, pp. 128-65. For a list of the abbreviations used see there, p. 129.

² *Denkm.*, Vol. II, pp. 60 f., 70.

³ Macalister and Duncan, *PEFA*, Vol. IV, p. 159.

⁴ Watz., Vol. II, Pl. 29, Fig. 67.

⁵ Wiegand, *Sinai*, pp. 117-18.

⁶ Pope, Vol. I, pp. 626 f.; *Iraq Museum Guide*, p. 118; on stucco ornament in general see Debevoise, *AJA*, 1941, pp. 45-61.

⁷ Watz., Vol. II, Pl. 28, Fig. 64.

⁸ *PAES*, Vol. II A, Fig. 333 c; Fig. 340 v.

⁹ Andrae, *Die Partherstadt Assur*, Pls. 15, 6; 17 f.

The ornament in the interior of one of the domes of the Double Gate of the Jerusalem Temple¹ (if indeed Herodian) furnishes an example of another manner of representing the leaf (Fig. 1). Here the surface of the leaf is flat, not deeply cut. The border, however, is emphasized by a separate raised line. We may compare another (possibly Late Roman) relief found at Acre; it has flat leaves with veins standing out in the centre (*QDAP*, Vol. XIII, Pl. XLIII, 6). The same mannerism occurs also at Si'² and has been related to the influence of Persian goldsmith's work,³ a suggestion confirmed by the finds of a Parthian stucco at Seleucia.⁴

We have here, therefore, two manners of representing a leaf, both unclassical, because relying on stylization and interplay of light and shadow rather than on the modelling of the surface. One manner lays more stress on the outline, the other on the contrast of shaded and lighted portions. Both can be traced in Palestine, Arabia, and Syria in the

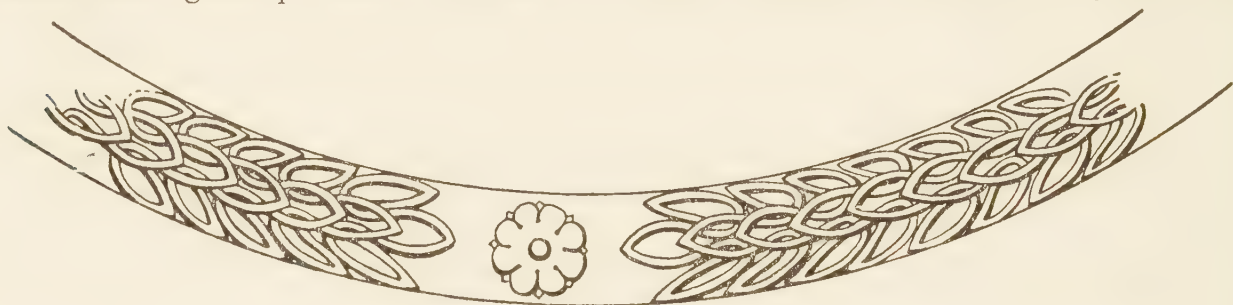


FIG. 1

following centuries as is shown by the several instances. At Keraza (Pl. XVIII, 3; cf. *QDAP*, Vol. XIII, Pl. XLIV, 8) we have flat-cut leaves with gouged-out interior (owing to the hard basalt material the cutting is less deep); pointed leaves (Pl. XVIII, 4) and other leaves with a raised border.⁵ The same combination of a raised border and a deeply shaded interior occurs in the synagogues at 'Alma (Pl. XVIII, 8), Capernaum,⁶ and ed-Dikke.⁷ At Capernaum⁸ we find also a geometrical regularity in the cutting of interstice leaves. It recalls the style of ossuaries (see p. 49 above). Besides, the leaves at Capernaum and Keraza are flatly spread over the whole decorated surface, thus giving a lace-like effect, directly related to the tympanum in the 'Tombs of the Judges' in Jerusalem.⁹ This lace-like effect appears equally in Coptic art,¹⁰ in Asia Minor,¹¹ and in the 'Theodosian' capitals at Constantinople.¹²

Kohl and Watzinger have pointed out¹³ that 'the outline, drawing of the flat leaves' of the Keraza synagogue (Pl. XVIII, 5, below) 'calculated to show the effects of shadow,

¹ Watz., Vol. II, Pl. 36, Fig. 60.

² *PAES.*, II A, Pl. XXVI.

³ Oelmann, *AA*, 1926, col. 283.

⁴ Waterman, *Tell Umar, 2nd preliminary report*, Pl. IX, 1 (Level III, 142 B.C.-A.D. 43).

⁵ *KW*, p. 50, Fig. 99 c, d, f; p. 57, Fig. 107.

⁶ *Ibid.*, p. 10, Fig. 13.

⁷ *Ibid.*, p. 114, Fig. 222.

⁸ *Ibid.*, pp. 15, 17, Figs. 25, 26 x.

⁹ Cf. *ibid.*, pp. 30-1, Figs. 55-64; cf. also the Kufeir coffin, Pl. XIX, 7, and p. 62 below.

¹⁰ Drioton, Fig. 2.

¹¹ Rott, *Kleinasiatische Denkmäler*, pp. 319, 321.

¹² Strzygowski, *JdI*, 1893, p. 10.

¹³ *KW*, p. 49.

shows characteristics leading to the Byzantine capital'.¹ This trend becomes evident in the fourth century. In Palestine, synagogues show a continuation of the ornamental tradition of contrasting light and shadow, of raised border and deeply cut interior; as for instance in the reliefs from the fourth-century synagogue at el-Hammam.² A similar type of ornament appears in Syria early in the same century: in A.D. 326 we find the leaves outlined by a series of raised borders on a 'Corinthian' capital at Qasr Zebed;³ at el-Umtaiye the leaves are sharply cut in two planes and outlined,⁴ at Umm Jimal they appear hollowed out.⁵ With the end of the century (c. A.D. 388-91) the 'Theodosian' capital⁶ is introduced at Constantinople with deeply cut and 'Byzantine' leaves outlined in contour. In the last two centuries of Byzantine rule in Palestine and Syria the same trend continued among Jewish monuments (e.g. in the marble screens from Ashdod⁷ and Ascalon⁸). In village churches it appeared also, e.g. in the chancel-post from Jundi (Pl. XVIII, 7), decorated with an olive-branch or olive-tree, whose leaves are arranged symmetrically. The design ends in a cross above, below which are two juglets. The centre of the stalk is grooved and this groove continues into each leaf. The contrast of the light outline and shadowy interior is worked out with unmistakable clearness.

The 'Isbeita lintel (*QDAP*, Vol. XIII, Pl. XLIII, 3; dated A.D. 593-631)⁹ sums up the current tendency at the end of the sixth century. The stalks of the vine plant are grooved; the laurel wreath in the centre and the leaves with grapes to the right and the left are gouged out and the cavity still further emphasized by red paint. The leaves in the upper corners of the lintel are, however, in a different technique. The interior is left flat and is separated by a thin groove from the raised border; this is a revival of the old Herodian technique, noted at the Double Gate, which has exercised a profound influence on Late Roman and Byzantine art, including their native variants.¹⁰

(e) *Capital ornament*

As a conclusion of the chapter on plant ornament, and as a transition to that dealing with geometric decoration, a few remarks may be offered on the transformations of the classical capital forms at the hands of native designers in Palestine and in Syria.

Recent research has tended to relate the origin of the classical capital orders to the Orient.¹¹ With the spread of Hellenism and the return of the classical capital to the Orient there began a period of free experimenting. As the Seleucid power declined and the work fell into the hands of native stone-masons there occurred a gradual resurgence of the Oriental elements. With the reign of Augustus and the consolidation of Hellenism after the firm establishment of Roman rule there followed a marked return to the orthodox classical orders standardized by Vitruvius. The Oriental exuberance of the earlier capitals is thus gradually reduced.

¹ Cf., for example, the Jericho capital, *QDAP*, Vol. X, Pl. XXVIII, 10.

² Sukenik, *JPOS*, Vol. XV, Pl. XIV.

³ *AAES*, Vol. II, p. 300.

⁴ Schumacher, *ZDPV*, 1897, p. 142.

⁵ *Ibid.*, p. 159.

⁶ Strzygowski, *JdI*, 1893, p. 10.

⁷ KW, p. 160, Fig. 291.

⁸ Reifenberg, *Denkm.*, Pl. 29.

⁹ Kirk, *JPOS*, Vol. XVII, p. 207.

¹⁰ Drioton, pp. 31-2; Strzygowski, *Koptische Kunst*, pp. 44 ff.

¹¹ Andrae, *Die ionische Säule*, *passim* (for the Ionic capital); *ibid.*, pp. 7 f., 64 and Pl. XII a-c (for the Corinthian); cf. also Grüneisen, *Oriens Chr.*, 1913, p. 305.

This development is sketched out by M. Schlumberger¹ for the Corinthian capital. However, the story does not end with the triumph of classicism in the first and second centuries A.D. Oriental influences revived in the third century and a new series of experiments began, partly based on the previous experiments of the Late Hellenistic period. This has led to the creation at the end of the fourth century A.D. of a new style of capital in Syria, with important repercussions in the following centuries in Palestine (especially in the south). We shall endeavour to demonstrate this unclassical tendency by a series of examples, taking each order of capitals separately.

(i) *The Ionic capital.* Simplified Ionic capitals occur in Pre-Herodian buildings at Samaria² but the real work of transformation begins with the ossuaries. The changes are in three directions: change in the volutes, in the decoration between the volutes, and in the ornament of the shaft below the volutes.

In the colonnette capitals from the synagogue at ed-Dikke³ the correct egg-and-dart pattern is kept, but the volutes above it appear dwarfed. In Byzantine times the volutes of Ionic capitals are transformed into round bosses decorated with rays (cf. Pl. XVIII, 9 from Kh. Harayik), rosettes,⁴ or crosses.⁵ This is a return to the early Oriental type of volute such as may be observed on the Achaemenid columns of the Persepolis *apadana*⁶ and the more or less contemporary early temple of Artemis at Ephesus.⁷

At Baude in Syria (A.D. 392) the volutes are inverted and end in two bosses, each with a cross.⁸ Another throw-back to the earlier Ionic capital occurs at the Kafr Bir'im synagogue, where the shape is square and the volutes occur in four pairs, directly supporting the corners of the abacus (as in the Corinthian capital) and without the classical side-cushions.⁹

The capital from Tell Fari'a (*QDAP*, Vol. XIII, Pl. XLVI, 7) is of interest not so much for its upper part, which is more or less classical, but because of the decoration of the shaft which shows an Oriental profusion of decorative motifs: first a scroll with leaves and tendrils, followed by a laurel wreath; below it alternating rosettes and concentric circles, separated by lotus flowers.

The volutes, however, are the essential part of the Ionic capital and were therefore less liable to change. More common are variations in the ornamented strip between them. Such variations begin with the representations of Ionic columns on ossuaries, e.g. Pl. XVIII, 10, where the centre is filled by a maeander;¹⁰ on another ossuary the volutes and the base mouldings are shown dislocated and detached from the column shaft (Pl. XVIII, 11).¹¹ Several similar examples from synagogues are quoted by Kohl and Watzinger.¹² At 'Imwas the central space is filled by inscriptions, Greek and Samaritan,¹³ in a semicircular space. The same space is filled with rays on the fifth- or sixth-century

¹ *Syria*, Vol. XIV, pp. 283-317.

³ KW, p. 123, Fig. 246.

⁵ *AR*, Vol. II, p. 65.

⁷ Andrae, *loc. cit.*, p. 5.

⁹ KW, p. 100.

¹¹ For an early Oriental example of two inverted volutes flanking a hatched square see Delaporte, *Cylindres* (Louvre), Vol. II, Pl. 105, No. 25.

¹² pp. 167 f.

² Reisner, Fischer, and Lyon, *Samaria*, Vol. I, p. 163.

⁴ Duncan Mackenzie, *PEFA*, Vol. I, Pl. XIII.

⁶ Andrae, *Die ion. Säule*, pp. 5 f.; Pope, Vol. IV, Pl. 101.

⁸ *PAES*, Vol. II B, p. 163.

¹⁰ Cf. also *RB*, 1907, p. 411.

¹³ *SWP*, Vol. III, p. 65; Vincent and Abel, *Emmaüs*, p. 236.

capitals from Kokanaya in Syria;¹ there another capital has a whirling rosette. Rosettes are also used in Ionic capitals from Jifna,² Haram,³ and Siyagha.⁴ In Christian buildings they were, of course, replaced by crosses, for example, on the capitals from Zikhron Ya'qov,⁵ 'Ain Shems,⁶ Deir Dosi (Pl. XIX, 1), Kh. Umm er Rus (Pl. XVIII, 12), Kh. el Harayik (Pl. XVIII, 9) in Palestine and Kafr Nebo⁷ in Syria. At Tell ed Dhahab⁸ the volutes are broken up and transformed into circles enclosing crosses. Rope-patterns or guilloches replace the earlier meander in various Syrian examples from the end of the fifth century;⁹ floral motifs appear at Si',¹⁰ grapes hang between the ovoli at Khurayib,¹¹ finally, in a capital (A.D. 500) from Zerzita the ornament is reduced to a pair of volutes,¹² an exact parallel to what has happened ultimately to the Corinthian capital (see below, p. 54).

(ii) *The Corinthian capital.* This capital is much more common among ancient remains, and its variants and derivations are correspondingly more numerous.¹³ M. Schlumberger has laid down *inter alia* the following characteristics for the orientalizing Corinthian capital of Hellenistic date:¹⁴ (a) the use of busts between the volutes;¹⁵ (b) the abacus resting on the corner volutes; (c) changes in the shape of the leaves. These characteristics continue to develop after a temporary eclipse in the second century A.D. Indeed, the gap between the latest 'heterodox' capitals from Nabataean Bostra and Kh. Tannur and the earliest 'heterodox' capitals from synagogues in Galilee is comparatively narrow.

The first characteristic enumerated above has been already dealt with in another context.¹⁶ The second has led to a deformation, diminution, or elimination of the two central volutes and to the use of other motifs in their place.¹⁷ Changes in the form of the leaves are secondary, but are related to the radical transformation of the Corinthian capital into various derived forms.

The combined effect of these anti-classical tendencies may be summed up as the destruction of the nice balance of the classical capital by excessive development of some of its component parts. The parts not favoured were suppressed, or at least reduced in size and atrophied. New elements were added to the original design which were derived from plant or geometric ornament. On one end of the scale stands the 'classical' Corinthian capital; at the other end are capitals evolved indeed out of the classical shape but so much changed as to form really a new species.

¹ de Vogüé, Pl. 103.

² Abel, *RB*, 1923, p. 112.

³ Froment, *Syria*, Vol. XI, Pl. XLVI, 1.

⁴ Saller, *The Memorial of Moses on Mt. Nebo*, Pl. 60, 6.

⁵ Schumacher, *QSt.*, 1887, p. 221.

⁶ See n. 4, p. 52.

⁷ *PAES*, Vol. II B, p. 295.

⁸ *Ibid.* (c. 350), p. 16.

⁹ *Ibid.*, p. 81 (474/5 and 477/8); Lassus, p. 38.

¹⁰ *PAES*, Vol. II A, Pl. XXVIII; *AAES*, Vol. II, p. 336.

¹¹ *PAES*, Vol. II A, p. 105.

¹² *Ibid.*, Vol. II B, p. 247.

¹³ The basic study is still Weigand, *Jdi*, 1914, pp. 37-91, amplified and brought up to date by Schlumberger, *Syria*, Vol. XIV, pp. 283-317.

¹⁴ *Loc. cit.*, pp. 287 ff.

¹⁵ Cf. also Ronczewski, *RM*, 1930, pp. 59-79; also Debevoise, *AJA*, 1941, p. 52 and Yeivin in Waterman, *Tell 'Umar*, Vol. I, Pl. II, 1-2, for the Parthian examples at Seleucia; for the early Egyptian and Cypriote prototypes, cf. Andrae, *Die ion. Säule*, p. 11.

¹⁶ *QDAP*, Vol. X, p. 138.

¹⁷ Cf. especially the capitals from 'Iraq el Amir (*PAES*, Vol. II A, p. 9), and the other examples from Palestine quoted by Schlumberger.

Much of the experimenting on the Corinthian capital centred on the volutes. The suppression of the middle volutes, noted by Schlumberger,¹ occurs also on a capital from Kh. Husha (Pl. XIX, 4) (Usha)—possibly from the third-century synagogue. Here the volutes are replaced by a rosette.² The outer volutes are increased in size and outlined



FIG. 2

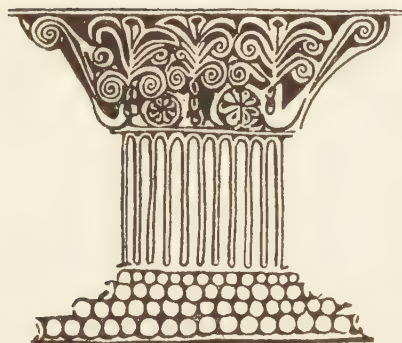


FIG. 3

by borders standing out from the deepened field. A capital from Kh. Fahil (Pella)³ (Fig. 2) described as 'Jewish or Christian' has two volutes starting from the base and developing into two small spirals on top. A similar type of the same period has been found on a keystone from Tell el Matlab,⁴ where the volutes are pushed into the corner and the centre filled with stylized plants and rosettes between them. Another variant may be found on an ossuary once in the Dormitio Museum (Fig. 3).⁵ It is repeated at Kh. Zakariya⁶ on a late Roman tomb. There the pilaster capitals have their two outer volutes in the extreme corners with the spirals turned inwards. The space between them is filled with leaves. A sixth-century capital from Siyagha⁷ shows the volutes ending in circles. In Syria we find instances (in the fifth century) of long, thin volutes rising between corner leaves and forming flowers⁸ or of small central volutes detached from the corner ones and appearing above the middle leaf of the second row (A.D. 443/4 at Kerratin).⁹ At Abu Amir¹⁰ the cauliculus ends not in two, but in seven volutes, which together form a flower.

A tendency towards an exaggeration of the corner volutes manifests itself on two capitals in the Palestine Archaeological Museum.¹¹ One, from Beit Nattif (Pl. XIX, 5), shows the central volutes replaced by a vase; in another, from Kh. Istabul (Pl. XIX, 6), the central space is a blank. In both, everything but the corner volutes has been suppressed, and the spirals are so much developed as to approach (in their general aspect) the Ionian pilaster capital. We find a somewhat similar case in Syria in the South Church at Mu'allaq (sixth century); the decoration of the capital is reduced to two atrophied volutes with a cross between them.¹² The same characteristics appear at the Sinai monastery, where the space between the volutes is filled by crosses, rosettes, &c.,¹³ and in a Coptic capital¹⁴ where the central space between the volutes is filled by a figure.

¹ *Syria*, Vol. XIV, Pls. XXXIV, XXXVI-XXXVII.

² A rosette replaces the volutes on a fifth-century capital from Deir Dosi.

³ Steuernagel, *ZDPV*, 1926, p. 20.

⁴ *AR*, Vol. II, p. 18.

⁵ Gisler, *Das heil. Land*, 1935, p. 16.

⁶ *AR*, Vol. II, p. 355.

⁷ Schumacher, *ZDPV*, 1893, p. 165.

⁸ At Dar Qita (A.D. 418) *PAES*, Vol. II B, p. 181; cf. Lassus, p. 208.

⁹ *PAES*, Vol. II B, p. 78 (A.D. 443).

¹⁰ *SWP*, Vol. II, p. 56.

¹¹ *AAES*, Vol. II, p. 306; cf. also the Barah capital, de Vogüé, Pl. 47.

¹² Lagrange, *RB*, 1896, p. 640.

¹³ Strzygowski, *Koptische Kunst*, No. 7358.

¹⁴ Nos. 36. 1857; 36. 1858.

Simultaneously with the modifications in the shape or arrangement of the volutes changes occur in the character of the leaf. One of these is an exaggerated elongation. The well-known 'Kondakoff' capital from Suweida¹ has already longer leaves than usual. It is followed in this respect by the third-century capital from Kh. Keraza (Pl. XVIII, 5) and the later examples from Kh. Fahil² (Fig. 2, p. 54) and the Golden Gate³ (sixth or seventh century). In Syria we should compare the capitals from Dar Qita (A.D. 573) and Deir Seta (sixth century).⁴

The characteristic leaves, cut sharply in two planes, as noted above (p. 49), influenced the design of capitals. The type of leaf with a cleavage in the centre, in two planes of contrasting light and shadow, occurs at ed-Dikke.⁵ Here also the single folioles are placed in symmetrical pairs along the stalk; they are related to the olive-tree on the Jerash cup (*QDAP*, Vol. XIII, Pl. XLIII) and the Kh. Jundi chancel post (Pl. XVIII, 7). Other capitals with leaves of the same character and similarly arranged are those from Kurnub (Pl. XIX, 8) and from Mt. Nebo⁶ (Fig. 4). The latter has the leaves sprinkled with dots; these appear also on another capital from the same site.⁷ The earlier capital from



FIG. 4

Kh. Husha (Pl. XIX, 4) has its volutes similarly decorated. The covering of the surface with ornament (even if it mars the subject), is a well-known characteristic of Oriental art.

¹ Schlumberger, *Syria*, Vol. XIV, Pl. XXXVI, 3.

³ Renan, *Mission*, Pl. XLI.

⁵ KW, p. 122.

⁶ Saller, *RB*, 1934, p. 126, Fig. 3; *id.*, *The Memorial of Moses on Mt. Nebo*, 1941, Pls. 45, 59 (2).

⁷ Schumacher, *ZDPV*, 1893, p. 165.

² Steuernagel, *ZDPV*, 1926, p. 20.

⁴ *AAES*, Vol. II, p. 41; de Vogüé, Pl. 116.

The capital from Beth She'arim (Pl. XIX, 2)¹ combines for all its crudity several interesting features. It has a medley of rough leaves expressed only by an outline and three grooves, indicating the veins. The leaves are interspersed with circles placed in the blank spaces. In its shape this capital clearly foreshadows the Byzantine impost type, of which there are several examples in Jerusalem itself,² while the combination of plants and circles continues a tradition handed down from ossuaries; for example, the ossuary from the Dormitio collection³ has a capital filled by a row of plants, with rosettes in between (Fig. 3, p. 54).



FIG. 5

Another variation of the Corinthian capital (and one which we can follow step by step) was developed in Syria. In it the volutes are suppressed and the capital has the shape of an inverted truncated cone; the leaves are pointed and are placed at intervals round the body, or in its corners, leaving the central space free for various kinds of ornament. This simplified capital can be easily carved in soft material; hence it had a great vogue in southern Palestine in the sixth century, when the old gouging technique was revived there⁴ (Fig. 5).

From the point of view of typological sequence this kind of capital developed out of the one occurring at Mt. Nebo⁵ and Sh. 'Ali Qasan⁶; both of which still keep a kind of rudimentary volute. Another capital shows the volutes transformed into trilobed plants⁷ and the leaves of the acanthus coarsened and subdivided by broad bands. The capital from 'Abda⁸ has leaves of the same general type, but it preserves the several superimposed rows of its Corinthian prototype. Syrian⁹ and Palestinian¹⁰ examples have the leaves arranged in a single row, but still going all round the capital. The central leaves are then replaced by trees. In some Syrian capitals¹¹ the leaves are separated from the ground and have thin stalks; they suggest trees and the transition is natural. In the 'Auja el Hafir capital¹² the trees are still there, but a whirling rosette appears between them.

In other cases the leaves are restricted to the corners, and the surface between them is filled by various motifs, rosettes,¹³ crosses,¹⁴ a rough human face¹⁵ sometimes reduced to a triangle.¹⁶ The Jewish capital from Jerash, with its bulky body and corner leaves with the seven-branched candlestick between, seems to be an early ancestor of this type.¹⁷ At Ma'in the faces of the 'leaves' are decorated with whole plants while the intervals are

¹ Maisler, *Excavations at Beth She'arim*, Jerusalem, 1940, p. 11 of Hebrew text.

² e.g. in the Golden Gate, Vogüé, *Le Temple de Jérusalem*, Pl. IX; but impost capitals occur already at the Musmiye praetorium, de Vogüé, Pl. 7.

³ Gisler, *Das heil. Land*, 1935, p. 16.

⁴ Cf. Wiegand, *Sinai*, pp. 117 f.

⁵ See p. 55, n. 7 above.

⁶ Lassus, p. 208.

⁷ Cf. *PAES*, Vol. II B, p. 14, Fig. 11 a of A.D. 598/9.

⁸ Lawrence and Woolley, *PEFA*, Vol. III, p. 104.

⁹ Lassus, p. 38; Ma'rata (*PAES*, Vol. II B, p. 91; cf. *ibid.*, p. 14, Fig. 11 D).

¹⁰ *PEFA*, Vol. III, *op. cit.*, p. 86; Wiegand, *Sinai*, pp. 59, 69, 80; Palmer, *QSt.*, 1871, p. 35.

¹¹ Lassus, *loc. cit.*

¹² Wiegand, p. 108.

¹³ *PEFA*, Vol. III, pp. 101, 111; Wiegand, pp. 91, 108.

¹⁴ *PEFA*, Vol. III, p. 120; Wiegand, p. 104; in Syria, *AAES*, Vol. II, p. 298; Lassus, p. 217.

¹⁵ *PEFA*, Vol. III, p. 79.

¹⁶ *Ibid.*, Pl. XXVII, 2; Wiegand, p. 77.

¹⁷ Detweiler, *BASOR*, No. 87, pp. 13, 16.

filled by vases with plants and once by a cross below, a donkey above.¹ The collar and the abacus receive various kinds of geometrical decorations, trefoils,² zigzag lines of various types,³ intersecting lines arranged in squares,⁴ a guilloche.⁵ On one example the zigzag line on the collar is combined with a cross flanked by a herring-bone pattern.⁶ The latter recalls Nabataean pottery⁷ and seems a geometrized form of the laurel wreath on the capital from Tell Fari'a (*QDAP*, Vol. XIII, Pl. XLVI, 7). A herring-bone pattern occurs on the Nabataean (?) capital from 'Abda (*ibid.*, Pl. XLVI, 6). Finally the guilloche is dissolved into circles and the geometric patterns formerly confined to the abacus fill the surface of the capital.⁸

The so-called Nabataean capital is itself a variation of the Corinthian type.⁹ It has been argued¹⁰ that this type of capital is nothing but a Corinthian capital roughly sketched out, with the details omitted. While this is quite possible with regard to the capitals found at Meda'in Salih and even the (re-used?) capital from one of the churches at 'Abda,¹¹ there exist capitals of distinctly Nabataean shape with Corinthian leaves added below¹² or even an all-over decoration of the whole surface.¹³ Obviously the artists, instead of completing the 'sketched-out' capital on 'orthodox' Corinthian lines, preferred to give it a different ornament, not free-standing but closely adhering to the surface. Its flat, lace-like relief is in itself evidence of Oriental influence.

(iii) *The so-called 'basket' capital.* This kind of capital has also given rise to much discussion. Wulff¹⁴ and v. Alten¹⁵ considered its Oriental origin certain; Wiegand¹⁶ thought the matter not yet ripe for decision; Grüneisen¹⁷ quoted examples of second- and third-century date from Italy. There are in fact two different types of the so-called 'basket' capital. The capital from Tusculum and the other Italian examples quoted by Grüneisen have closely woven tissue with warp and woof, rather resembling textiles. On the other hand, the Eastern examples are loosely woven, with big interstices resembling lattice-work. The 'basket' effect is obtained by the contrast of the light crossing lines against a dark background. In the Urfa capital¹⁸ the interstices are filled with leaf-ornament. In this discussion both parties have overlooked the important evidence of the third-century basket capital from the Umm el Qanatir synagogue¹⁹ which forms a link between the Assyrian and later Oriental examples (Fig. 6).

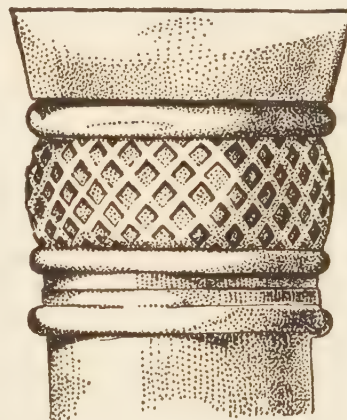


FIG. 6

¹ de Vaux, *RB*, 1939, Pl. I, 1. ² Lassus, p. 208; *PAES*, Vol. II B, p. 14. ³ *PEFA*, Vol. III, p. 87, Pl. XXVII, 2. ⁴ Wiegand, p. 77. ⁵ *PEFA*, Vol. III, Pl. XXVII, 2 (cf. *PAES*, Vol. II B, p. 81, A.D. 477/8).

⁶ Wiegand, p. 108.

⁷ See *QDAP*, Vol. XIII, p. 158.

⁸ *PEFA*, Vol. III, Pl. XXVII, 2. An early example of this decoration occurs on the Nabataean temple at Sur, *PAES*, Vol. II A, p. 429, Pedestal D.

⁹ Ronczewski, *AA*, 1932, cols. 55 ff.

¹⁰ By de Vogüé; cf. Jaussen and Savignac, Vol. I, pp. 396-7.

¹¹ Cf. also the capital from Mar Elias, Steuernagel, *ZDPV*, 1925, p. 336.

¹² *PAES*, Vol. II A, Pl. X.

¹⁴ *Altchr. u. byz. Kunst*, Vol. I, pp. 277 f.

¹⁶ *BZ*, Vol. XIV, 1914/19, pp. 201-6.

¹⁷ *Oriens christianus*, 1912, p. 287 ff.

¹⁸ Grüneisen, *loc. cit.*, p. 292.

¹³ Cf. Ronczewski, *loc. cit.* (Petra).

¹⁵ *Gesch. des altchristl. Kapitells*, 1913.

¹⁹ KW, p. 128.

It appears, however, that this matter may be also approached from another angle. The so-called 'basket' capital can be understood as a translation of interlacing or criss-crossing lines from a flat surface to a curved one. The crossing lines, forming rhomboids, are a favourite Nabataean motif¹ which survived in later church decoration in the Hauran.² In some Corinthian capitals the volutes cross. In Syria there is an example³ of volutes forming a laced pattern with dots in the interstices. The next step is the latticed but flat capital found at Kuseibeh (A.D. 414).⁴ From these we may pass to the latticed and curved capitals from Kh. Zakariya⁵ and the well-known capitals from Jerusalem,⁶ at Deir Dosi,⁷ as well as the Coptic examples.⁸ This view is confirmed by the use of other geometric elements transferred from the flat to the curved surface of a capital, as, for example, the capital from et-Tell (Pl. XIX, 3) which is decorated with a guilloche. It resembles in its general effect the Assyrian Khorsabad capital.⁹ Capitals decorated with a guilloche and

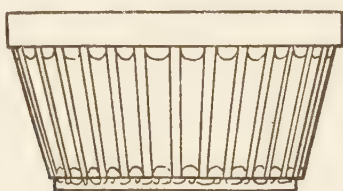


FIG. 7



FIG. 8

filled with various ornaments (cross, rosettes, &c.) occur at Kuseibeh in Syria (414) and at Baudeh (392).¹⁰ Parallel with them we find at Brad impost capitals (A.D. 375-400)¹¹ which have straight lines and circles between them (Fig. 7). The same type occurs at Babiska (c. 390), Kuseibeh (414),¹² and Brad¹³ where the lines are twisted, rather like the 'windblown' capitals. The transition from this kind to the criss-cross capital at Deir Turmanin (Fig. 8) is an easy one; the 'basket' capital is the next logical step.

D. Geometric Ornament

Geometric ornament admits originally of fewer variations than animal or plant ornament, because it is based upon the relatively few combinations of straight and curved lines, rather than upon the infinite variety of natural forms.¹⁴ As it is based on abstract and logical considerations, it is much more likely to arise independently in centres distant from each other. Thus it leaves less room for research into the interrelation of various arts. It would be vain, therefore, to try to trace all the geometrical elements of the Palestinian 'Grammar of Ornament' in the Roman and Byzantine periods to their Orien-

¹ *PAES*, Vol. II, p. 376; *BD*, Vol. III, p. 95; *AAES*, Vol. II, p. 414.

² Dunand, *Musée*, p. 69, No. 144; cf. the Qanawat relief, de Vogüé, Pl. 20.

³ Lassus, p. 208.

⁴ *PAES*, Vol. II B, p. 159.

⁵ *SWP*, Vol. III, p. 108.

⁶ For example, at the 'Aqsa and St. Helena's Chapel, cf. Hamilton, *QDAP*, Vol. XIII, pp. 109, 117.

⁷ Weigand, *BZ*, Vol. XIV, Pls. 1, 2; III, 6; IV, 4 and 5; Grüneisen, *Or. Chr.*, 1912, p. 290.

⁸ *Ibid.*, p. 288.

⁹ Perrot and Chipiez, *Hist. of Art in Chaldaea and Assyria*, Vol. I, p. 207.

¹⁰ *PAES*, Vol. II B, p. 159; *ibid.*, p. 163.

¹¹ *Ibid.*, p. 307.

¹² *Ibid.*, pp. 159, 166.

¹³ *Ibid.*, p. 307, O.

¹⁴ Riegl, *St.*, p. x.

tal prototypes. We shall confine ourselves rather to the attempt to prove the existence of a geometric undercurrent in ornament from the Bronze Age to the Byzantine.

Generally speaking, the mere fact of the continued existence of geometric ornament is in itself a sign of the survival of Oriental tendencies. Greek art had passed its geometric stage many centuries before Alexander. The common Greek architectural and ceramic decoration replaced ornament based on lines and circles by motifs derived from plants. An exception to this rule are the mosaic pavements. Here geometric ornament seems never to have died out completely. There are two possible reasons for this. One, a technical one, is that the easiest way to handle the square mosaic cubes is to lay them out in geometrical patterns. This was done at first in the less important (i.e. less visible) parts of the pavement, such as corridors, borders, &c. But later on geometric ornament spread to the central field of single pavements and the decoration of the principal rooms. The other reason is the assumption of a particularly strong Oriental influence in this material, due to a large extent to the copying in stone of the pattern of woven carpets.

In any case the traditional tendency towards a repetition of abstract patterns remained a vital element of Oriental decoration. It reasserted itself in the Roman Empire with the general revival of Orientalism in the third century A.D.¹

In Palestine examples of the survival of the geometric tradition should be naturally looked for among the peasant arts on textiles and objects in wood and bone.² Owing, however, to the fragile nature of such materials almost nothing has survived of it. Yet we have in the ossuaries of the first centuries B.C. and A.D. roughly dated evidence for the continuation of this tradition. From these we may trace it both backwards and forwards.

The standard type of the ossuaries (Fig. 9) shows the decorated side framed by a border formed usually by a zigzag line within two straight ones. This border encloses two compartments filled by rosettes (usually six-petalled ones). The whole is drawn with mathematical neatness with the aid of compasses. The design is gouged out with a sharp tool in the soft limestone of which such ossuaries are usually made.

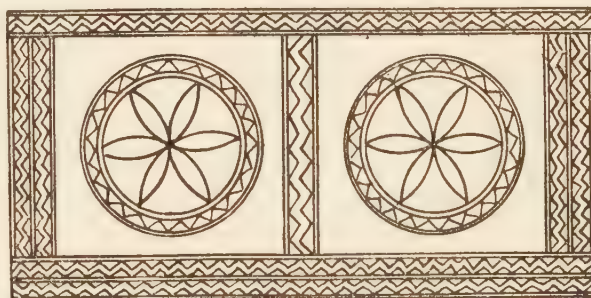


FIG. 9

The scheme of decoration of these ossuaries is basically a metope pattern, with the metopes filled by circles. The metope style itself is in the oldest Oriental tradition.³ It occurs in Palestine⁴ in a fully developed form, with circles filling the metopes, already on Middle Bronze⁵ and Iron Age pottery.⁶

¹ Cf. on this point Strzygowski, *Amida*, pp. 156-7.

² Watz., Vol. I, p. 39; Vol. II, p. 158; Wiegand, *Sinai*, pp. 117 f.; in general see Dalton, *Byzantine Art and Archaeology*, p. 685.

³ V. Christian, *Alttertumsk. d. Zweistroml.*, Pls. 71 ('Ubaid), 107 (Uruk III); cf. the Tell Halaf ware from Arpachiya (Mallowan and Rose, *Iraq*, Vol. II, Figs. 35, 56, 58, 77, &c.).

⁴ Grant, *Beth Shemesh*, pp. 193, No. 415; Guy and Engberg, *Megiddo Tombs* (OIP, 33), Pl. 34, 9, &c.

⁵ Gezer, Vol. III, Pl. CLXIII, 2; EIP, Pl. 44; Petrie, *Ancient Gaza*, Vol. II, Pl. XXXIX.

⁶ Gezer, Vol. III, Pl. CLVIII, 1.

The zigzag border frame represents a still older tradition, found in prehistoric ornament in Europe¹ and in Palestine in all periods from the Chalcolithic to Iron Age II,² as well as in Cyprus,³ Asia Minor,⁴ and Assyria.⁵

The six-petalled rosette drawn with compasses appears in Palestine in the Late Bronze Age, on an ivory fragment found at Tell Abu Hawam,⁶ in all probability an Egyptian import. A Hellenistic decorated slab from Tell Sandahanna⁷ has two six-petalled rosettes flanking a chequer-board, a layout closely related to later ossuary decoration.

It will be seen, therefore, that the standard design of Jewish ossuary is firmly based in all its details on a type of geometrical ornament traditional in Palestine. As such it has spread to Africa⁸ by way of Alexandria.⁹ There is also some evidence extant in Palestine and Syria of the survival of this type into later periods, e.g. capitals from Kurmil,¹⁰ coffins from Deir Dosi (Fig. 10),¹¹ Parthia, and Syria.¹² Of course, in many of these late examples

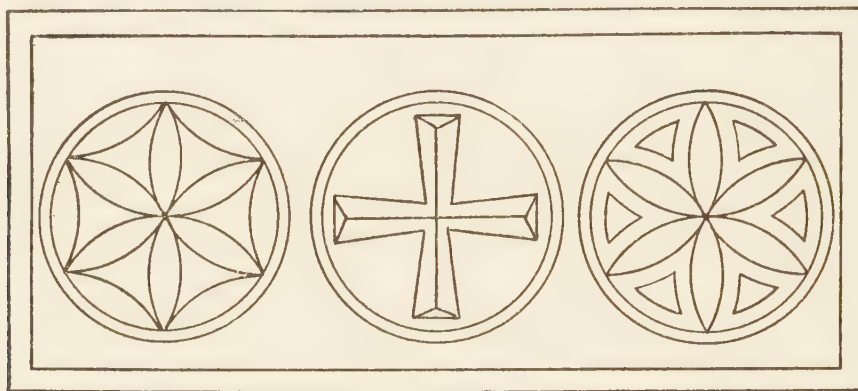


FIG. 10

the general layout only has been preserved and the six-petalled rosette has been replaced by a cross. At Kh. Abu Amir¹³ a whirling wheel is associated with a six-petalled rosette within a guilloche frame. At Ma'in¹⁴ a lintel is divided into two panels, filled by six-petalled rosettes.

The most prolific descendants of the ossuary style do not, however, belong to the standard majority type with two panels, but to the two variations related to it, viz., (i) the coffins decorated by a row of rosettes, (ii) the tripartite (in a few cases quadrupartite) ossuaries.

¹ Riegl, *St.*, p. 23.

² *Chalcolithic*: Mallon *et al.*, *Tuleilat Ghassul*, Vol. I, Pl. 54. *EB*: FitzGerald, *The Museum Journal*, 1935, Pls. VII, 18; VIII, 6. *MB:OIP*, 33, Pls. 22, no. 19; 45, no. 18; 46, no. 14. *LB: EIP*, Pl. 43, no. 1; *OIP*, 33, Pl. 55, no. 1; Duncan, *Corpus*, p. 15 N 2. *LB-IA*: on alabaster vases, Ben-Dor, *QDAP*, Vol. XI, p. 109 (F 14). *IA: Gezer*, Vol. III, Pl. CCXX, 8. *IA, II: Gezer*, Vol. III, Pl. CLXXVI, 10. *Hellenistic: Gezer*, Vol. III, Pl. CLXXXII, 6.

³ Perrot-Chipiez, *History of Art in Phoenicia*, Vol. I, p. 121.

⁴ *Id.*, *Phrygia, Lydia, Caria*, pp. 325 f.

⁵ Dussaud, *Syria*, Vol. XV, p. 193.

⁶ Hamilton, *QDAP*, Vol. IV, Pl. XXXII, 381.

⁷ *EIP*, Pl. 18.

⁸ *RAO*, Vol. II, p. 79.

⁹ Schreiber, *Sieglin Expedition*, Vol. I, p. 188.

¹⁰ Abel and Barrois, *RB*, 1929, p. 584.

¹¹ Weigand, *BZ*, 1914/19, p. 211.

¹² Sukenik, p. 890. Cf. the 'lipsisnotheca', published by Lassus, Pl. XXVIII; the inscribed lintels from Abu Mekke, of A.D. 567 (*ibid.*, p. 8), and the Sinjar basalt door (*PAES*, Vol. II B, p. 67); also Andrae, *Die Partherstadt Assur*, Pl. 16.

¹³ *SWP*, Vol. II, p. 55.

¹⁴ *SEP*, p. 177.

(i) The metopes filled with circles which serve as the basis of the decoration of the ossuaries appear also on the lintels of some of the Jewish rock-cut tombs at Jerusalem and in the mountains of Ephraim and Judah. These are a transformation of the Greek metope friezes of the Doric style, but replace by a variety of rosette motifs the uniform disks which usually fill the metopes. Rosettes within metopes appear also on coffins. The classical form, which we find on the lintel of the Tombs of the Kings¹ in Jerusalem, at Baniyas,² and at er-Ram³ (Pl. XIX, 10), appears also on a coffin from Benyamina with which should be compared a Sassanian pottery basin.⁴ The lintels, in which the uniform disks are replaced by rosettes of various forms—diversified occasionally by bunches of grapes or *peltae*—are those from Deir ed Derb,⁵ a rock-cut tomb north of Jerusalem,⁶ at Kh. Tibna, Wadi el Masani,⁷ Maqati 'Abud,⁸ &c. These have the rosettes filling the metopes grouped round a central motif. The same type of ornament appears also on coffins from Hederah (Pl. XIX, 12), Nablus,⁹ and Balata (Pl. XIX, 11).¹⁰



FIG. 11

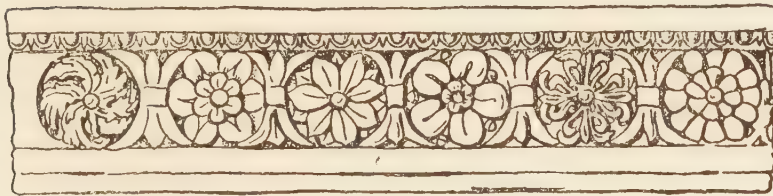


FIG. 12

The next step from the point of view of ornamental sequence is the suppression of the metopes on sarcophagi by a continuous row of rosettes. This step could hardly be carried out on tomb façades, which are much more directly connected with architectural ornament. Only in later centuries was the sense of classical design lost so far as to make possible a string of motifs on lintels without a structural subdivision. The earlier Nabataean and Palmyrene tomb façades referred to below are exceptional in this respect.

This ornamental row of rosettes appears on the coffin from the Tombs of the Kings, now in the Louvre.¹¹ The decorated sarcophagus from the Haram, Jerusalem,¹² belongs to the same class (Figs. 11–12). All these are strongly influenced by Hellenistic plant relief,

¹ M. Kon, *The Tombs of the Kings*, Jerusalem, 1947, p. 48, Pl. VI.

² *SWP*, Vol. I, p. 110.

³ *Ibid.*, Vol. III, p. 155.

⁴ Pope, Vol. IV, Pl. 188 B.

⁵ *SWP*, Vol. II, p. 313.

⁶ Macalister, *QSt.*, 1900, pp. 57–61.

⁷ de Vogüé, *Temple de Jérusalem*, p. 73; cf. Macalister, *QSt.*, 1904, p. 247; Avigad, *ibid.*, 1947, p. 117.

⁸ *SWP*, Vol. II, p. 364; *QDAP*, Vol. XIII, p. 150, Fig. 25.

⁹ Vincent, *RB*, 1920, p. 131.

¹⁰ The bunch of grapes in the centre of the latter should be compared to that in the same central position in the Tombs of the Kings and Maqati 'Abud (*QDAP*, Vol. XIII, p. 150).

¹¹ Dussaud, *Mon.*, p. 45.

¹² *AR*, Vol. I, p. 138.

but keep to the essential element of the ossuary style, viz. a row of rosettes. In a simpler form the same decorative arrangement is repeated on a coffin from Kufeir (Pl. XIX, 7), related to the ossuary type.¹

The further development of the type can be studied on later examples from Palestine and Syria. Among the earliest of these are the Nabataean tomb façades at Meda'in Salih (1 B.C.)² and at Si'.³ The Jebeil sarcophagus, published by Renan,⁴ has wreaths, circles, and leaves arranged in a row. A lintel from Palmyra, dated A.D. 108,⁵ has a row of rosettes enclosed in a guilloche. (It should be compared with the relief from Abu Amir.)⁶ The synagogue friezes from Capernaum⁷ supply the next link, dating from the third century. To the same class belongs the lintel from Kh. Dubil⁸ where some of the filling motifs are symbols. The lintel from Tamra (Pl. XXIII, 4) also belongs to this period. The 'Abda lintel,⁹ which combines six-petalled rosettes with human figures and a swastika, appears not much later. Rosettes are combined with wreaths and bulls' heads on a Syrian lintel from Kharab Shems.¹⁰ The row of rosettes appears in 392 on a capital at Baudeh in Syria¹¹ and in 414 at Kuseibeh.¹² In the sixth century it occurs on a screen at Behioh,¹³ where it developed into an endless 'all-over' pattern. Undated Syrian examples are the Mujeileiya lintel,¹⁴ combining crosses, whirling wheels, and six-petalled rosettes. Lintels from Ma'asarti¹⁵ and Hawa¹⁶ are decorated with a row of circles, trees, and rosettes. In Arabia we find at Tell Tihin¹⁷ a Byzantine lintel with a guilloche enclosing various rosettes, also six-petalled ones (Fig. 30, p. 74 below). In conclusion one may quote the classical Byzantine example from the church of Hagia Sophia, where flowers alternate with six-petalled rosettes.¹⁸

(ii) We do not as yet know enough of the history and the development of ossuary decoration to fix the relation between the majority of extant examples with the standard bipartite type, and the minority with a tripartite or quadrupartite decoration. If the latter could be proved later in time a great advance would be made in establishing the parentage of the standard Byzantine type of tripartite lintel ornamented with geometric patterns.

Among the ossuaries we find already several experiments with irregularly arranged rosettes, e.g. on the ossuary found at 'Imwas (Pl. XIX, 9). Such irregularity is, however, an exception among the 'heterodox' ossuaries. As a rule, decoration of the latter is symmetrically tripartite. The three rosettes are usually all equal, as those on Pl. XX, 2. In other cases the decoration remains true to the same pattern, but differentiates the three circular designs in size or type. The central rosette is made either larger (or smaller) than the

¹ Avi-Yonah, *Bull. Jew. Pal. Expl. Soc.*, Vol. XII, pp. 15 ff.

² Jaussen-Savignac, Vol. II, Pl. XLI.

³ *PAES*, Vol. II A, p. 371.

⁴ *Mission*, Pl. XXIX.

⁵ Amy and Seyrig, *Syria*, Vol. XVII, Pl. XLV.

⁶ *SWP*, Vol. II, p. 55.

⁷ *AS*, Pls. IV b, V a.

⁸ Oliphant, *QSt.*, 1884, p. 32, gives the lintel in full; a part is published in *QDAP*, Vol. XIII, Pl. XLI, 9.

⁹ Jaussen, Savignac, and Vincent, *RB*, 1905, p. 76.

¹⁰ *PAES*, Vol. II B, p. 322.

¹¹ *Ibid.*, p. 163.

¹² *Ibid.*, p. 159.

¹³ de Vogüé, Pl. 137.

¹⁴ Mattern, *MFOB*, Vol. XVII, p. 34, Pl. XVI, 5.

¹⁵ Froment, *Syria*, Vol. XI, p. 287.

¹⁶ Lassus, Pl. XVI, 1.

¹⁷ Jaussen and Savignac, Vol. I, p. 25.

¹⁸ Riegl, *St.*, p. 287.

rest (cf. the ossuary, Pl. XX, 3)¹ or a six-petalled rosette is flanked by rosettes of different shape or by two 'whirling wheels' (Pl. XX, 1 and 6). Often, too, the central rosette is richer and more elaborate in design.² Very numerous are the examples of two rosettes on both sides of a shrine, doorway, column, or tree.³ Of special interest are the following examples: Pl. XX, 7 from Deir Abu Tor, Jerusalem, anticipates later developments by

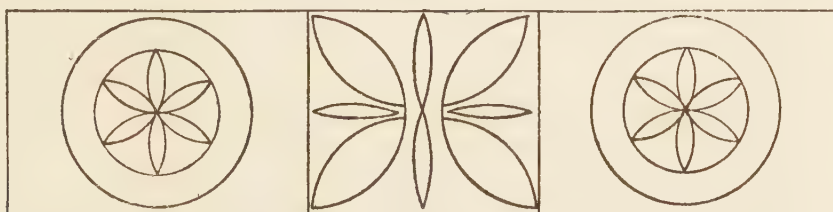


FIG. 13

showing one of the earliest examples of an 'all-over' pattern, developed out of an ordinary six-petalled rosette, but capable of indefinite extension.⁴ The ossuary from Wadi en-Nar (Fig. 13)⁵ approaches a common Byzantine pattern of lintel decoration, with a square enclosing a flower in the centre, flanked by two of the usual rosettes. Still nearer to the Byzantine type is the ossuary from the same tomb⁶ (Fig. 14) which has, on a blank surface, a cruciform rosette flanked by two smaller multi-petalled flowers. The tradition established by the ossuaries was continued in rural Palestine by the lintels of synagogues, churches, and even private houses. Thus the continuation of the decorative 'subantique' traditions may be established after A.D. 70.



FIG. 14

Before, however, discussing the decoration of the lintels, we should note that the ossuary tradition influences also the garland sarcophagi. In at least one case (the sarcophagus from Farkha) we see the rosette, derived from ossuaries, on the short side combined with garlands on the long side (Pl. XX, 4-5).

Garland sarcophagi represent on the whole a classical tradition.⁷ In Palestine and Syria, however, they show a marked tendency to tripartite decoration with designs of geometric character above the garland, instead of the usual cupids or busts. In such tripartite decoration the central element is as a rule different from the two flanking ones (cf. on the sarcophagi from Haifa, Pl. XX, 9, 'Imwas,⁸ and Beit Nattif⁹). In others the central ornament is a *tabula ansata* flanked by rosettes, as at Tiberias,¹⁰ Kafr Kenna,¹¹ and

¹ The petals and the border encircling the rosette are filled by zigzag lines (cf. p. 60 above), for which parallels can be found in Beth She'arim (Maisler, *Excavations at Beth She'arim*, 1940, Title-page, Hebrew text) and later in Syria (Lassus, p. 69; *AAES*, Vol. II, p. 33, Nos. 11, 12, 15).

² Wilson, *Recovery of Jerusalem*, p. 494.

³ See *QDAP*, Vol. X, p. 140 and Pl. XXIX, 2 and 9.

⁴ *Qobes*, p. 68.

⁵ Sukenik, *JPOS*, Vol. XII, Pl. V.

⁶ *Ibid.*, p. 24.

⁷ But cf. Ronzevalle, *MFOB*, Vol. VII, p. 158.

⁸ *AR*, Vol. II, p. 157.

⁹ Savignac, *RB*, 1903, p. 433.

¹⁰ Schumacher, *QSt.*, 1887, p. 86.

¹¹ Ronzevalle, *MFOB*, Vol. VII, p. 156. Cf. the Sidon coffin, Contenau, *Syria*, Vol. I, p. 152.

the unpublished sarcophagi from Shu'eib (Pl. XX, 8), Tulkarm (Pl. XXI, 1), and Nablus (Pl. XXI, 2).¹

The combination of three wreaths arranged in a row on a lintel with a garland joining the outer two and passing below the central one occurs at Kh. Jebrish,² and forms a transition between garland sarcophagi and related lintels.

Decoration with motifs arranged in threes appears on lintels as well. The most common type has rectangular surface with or without a frame, decorated with three circles, or a square flanked by two circles. Inside the circles or squares are rosettes or crosses. The central ornament is usually different in size from the two others. The whole layout is basically one of circles enclosed in framed metopes, i.e. identical in outline and detail with that of the ossuaries (p. 59 above). Among the synagogue lintels we note a tripartite arrangement at Sufsaf,³ Yafa,⁴ and Capernaum.⁵ These reproduce the tripartite arrangement in their general layout. The Sufsaf lintel has also a scroll border which reproduces in a winding form the zigzag outline of the ossuaries (Pl. XXI, 3). There are, however, other and closer parallels in Palestine and Syria in which the resemblance extends to

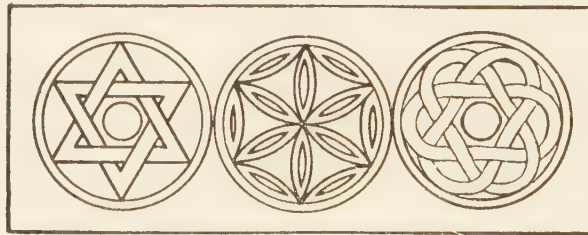


FIG. 15

details. These may be divided into two groups: those which contain no Christian symbols and those on which crosses appear and which are therefore certainly later.

(a) The first group includes combinations of rosettes with wreaths, with the wreath in the centre, such as the lintel from 'Ajja (Pl. XXI, 6). It includes two synagogue lintels, one from 'Ibellin (Pl. XXI, 7), a lintel with two six-petalled rosettes flanking a Judaeo-Aramaic inscription, and another from Yafa, with a candlestick between the rosettes.⁶ The inscription is sometimes replaced by an empty *tabula ansata*, flanked by two rosettes, with six-petalled rosettes⁷ or without (Tiberias, Pl. XXI, 4). Combinations of three rosettes of varied character occur on lintels at Burj Beitin,⁸ Baikat Abu Hadbe (Fig. 15), and Bani Na'im (Pl. XXI, 5). In Syria valuable evidence is supplied by the lintel found by Cumont at Dura-Europos⁹ (Fig. 16). It shows a square filled by a four-petalled rosette and flanked by circles with two six-petalled rosettes. It thus furnishes a close parallel to the ossuary mentioned above (Fig. 13 and p. 63). If this lintel really belongs to ancient Dura and not to a Byzantine house

¹ Cf. also the Nablus coffin, Vincent, *RB*, 1920, p. 131.

² *Ibid.*, Vol. I, p. 257.

³ Orfali, pp. 53, 58, 59.

⁴ Khisfin (Oliphant, *QSt.*, 1885, p. 88) and el Khanezir (Steuernagel, *ZDPV*, 1925, p. 378).

⁵ *SWP*, Vol. II, p. 307.

⁶ *SWP*, Vol. II, p. 238.

⁷ Vincent, *RB*, 1921, p. 437.

⁸ Vincent, *RB*, 1921, p. 436.

⁹ *FDE*, Pl. XCI, 5.

erected on its ruins, it is clear proof of the survival of the geometric tradition in Syria down to about A.D. 262. The appearance in Syria of the tripartite design with filling motifs is noted by Wulff,¹ who, however, fails to relate it to the earlier ornament.

(b) Christian lintels of the same general layout have, as a rule, one or several crosses combined with rosettes. The crosses are usually of the Maltese variety, which resembles a six-petalled rosette and can be produced by a similar gouging technique.

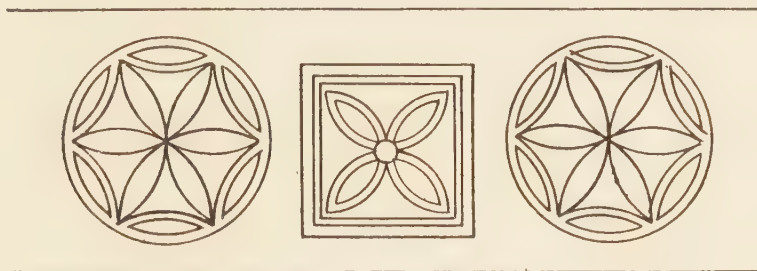


FIG. 16

Such tripartite lintels from village churches can be subdivided as follows: on some the decoration consists of three crosses, in a decorative setting, with the central cross different from the rest in size or design. Such are the lintels at Khisfin,² the capital from Kurmul,³ the lintels of Buweire,⁴ Beiyad,⁵ and Duweimin (Pl. XXII, 1). Other lintels combine a central cross with a rosette on either side, e.g. at Kh. er Ribba (Fig. 17), Beersheba,⁶ and el Qahf.⁷

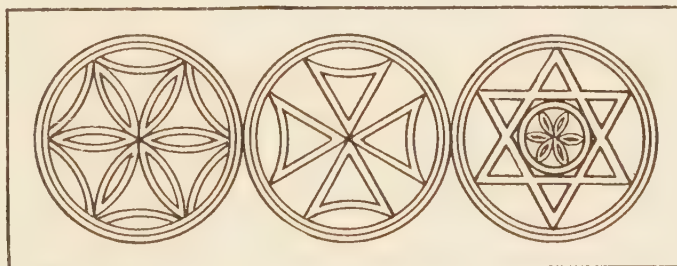


FIG. 17

This simpler type of lintel, decorated with two, three, or more circles enclosing crosses, six-petalled rosettes, or 'whirling wheels', has many parallels in Syria. Three crosses in a row (with the central bigger than the rest) (cf. p. 62 f.) appear in A.D. 566 at Abu Habbe;⁸ two crosses flanking a rosette on an undated lintel at Melah eş-Şarrâr.⁹ The type is repeated farther west. Several crosses appear arranged in a row on a bronze box from Cyprus¹⁰ and on sarcophagi from Ravenna.¹¹

¹ *Altchristl. u. byz. Kunst*, Vol. I, pp. 265 ff.

³ Abel and Barrois, *RB*, 1929, p. 584.

⁵ *SWP*, Vol. I, 114.

⁷ *SEP*, p. 119.

⁹ R. Dussaud, F. Macler, *Mission dans ... la Syrie Moyenne*, p. 259.

¹⁰ G. A. Soteriou, *Τὰ Βυζαντικὰ μνημεῖα τῆς Κύπρου*, Vol. II, Pl. 153, 2.

¹¹ Diehl, *Manuel de l'art byzantin*, Vol. I, p. 284, Fig. 140; p. 286, Fig. 141.

² Oliphant, *QSt.*, 1885, p. 88.

⁴ *AR*, Vol. II, pp. 74-5.

⁶ Macalister, *QSt.*, 1902, p. 234.

⁸ Lassus, p. 50.

Crosses are combined with rosettes in various forms. A cross flanked by two 'whirling-wheels' (cf. p. 73 below) appears in 418 at Deir Sanbil,¹ in 456 at Dar Qita.² Crosses, rosettes, and wheels occur together on a lintel at Mujeileiya.³

A common type of lintel continues the Dura tradition (p. 64 f.) by having two rosettes in circles flanking a square ornament, often a decorative cross: e.g. at Qasr el Muharram in 551,⁴ at Qasr Abu Samra⁵ in 552, at Tell Khazne in 562-3,⁶ and at Umm el Halahil in 574.⁷ Another group consists of a series of lintels combining *tabulae ansatae* with crosses in a tripartite arrangement. At Qaryat Sa'ida⁸ two *tabulae* flank an ornate cross in a circle; at Rihab⁹ two *tabulae* (each with a cross inscribed in a circle), flank an ornament; at 'Ebta¹⁰ the three crosses, separated by parallel lines resembling those found on ossuaries, are inscribed in one big *tabula ansata*. The double *tabulae ansatae* from Rihab and

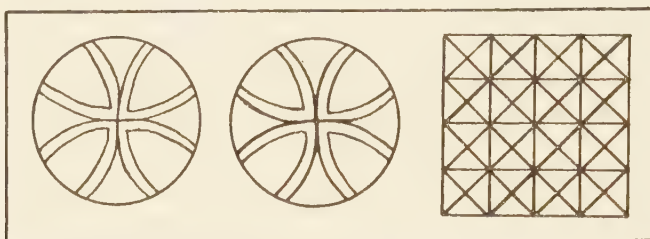


FIG. 18

Qaryat Sa'ida have their parallels in Syria in a lintel from Tell Senan, dated 471.¹¹ Finally, there are such irregular (but always tripartite) lintels as that from Kisra (Fig. 18) which has a criss-cross design combined with two crosses, and that at Kh. Rabi' which combines a six-petalled rosette, a cross, and a square ornament (Pl. XXI, 8). The former recalls a similar combination (but with a six-petalled rosette instead of a cross) which has been found at 'Auja el Hafir.¹²

In Syria too tripartite lintels occur with rosettes and squares arranged in various combinations such as the lintels from Sheikh Sleiman (602),¹³ Brad,¹⁴ el Uber,¹⁵ and Umm el Halahil.¹⁶

In surveying the whole chain of development described above, we can date the mixed style of rosettes arranged in a row (with or without a guilloche frame) to the fifth century, and the revival of the combination of circles with square centre-pieces to the sixth. To sum up: this type of extremely plain geometric ornament comes more and more into evidence as the Byzantine ornament comes into its own. It should be noted, however, that both in Palestine and in Syria the examples quoted are all from rural areas. In the big centres of population with their magnificent cathedrals the predominantly floral Late Hellenistic type of decoration prevailed almost unchallenged. The rural type of

¹ de Vogüé, Pl. 151.

³ Mattern, *MFOB*, Vol. XVII, p. 34, Pl. XVI, 5.

⁵ *Ibid.*, p. 157.

⁸ Macalister, *QSt.*, 1904, p. 251.

⁹ Steuernagel, *ZDPV*, 1925, p. 364.

¹² Wiegand, *Sinai*, p. 108.

¹⁴ *Ibid.*, Vol. II B, p. 311.

¹⁶ Lassus, p. 69.

² *PAES*, Vol. III B, no. 1081.

⁴ Lassus, p. 145.

⁷ *Ibid.*, p. 74.

¹⁰ *Ibid.*, p. 366.

¹¹ Lassus, p. 220.

¹³ *PAES*, Vol. III B, no. 1211.

¹⁵ *Ibid.*, Vol. III A, No. 7962.

ornament clearly represents a native tradition which, as we hope we may have proved, had direct ancestors in the lintels and ossuaries of the Herodian age in Palestine. The decorative tendencies there expressed must have been preserved by the conservative peasantry through two, or perhaps three, changes of faith.

As a counter-example to the survival of the rosette as a motif congenial to the Oriental character, we may quote the gradual disintegration of a Western motif, the *tabula ansata*. This reproduces in stone the metal tablet with an inscription affixed to the wall. Its proper use was, therefore, to serve the framework of an inscription. We find, however, many examples in which the inscription overflowed from the *tabula*¹ or where the *tabula* was left blank² or was filled instead with ornament. One instructive example has the inscription along the upper border of the *tabula*, while its face is filled by a symbol.³ We find combinations of two *tabulae* sometimes inscribed⁴ but often covered with crosses or other symbols⁵ or even animals in relief.⁶ Single blank *tabulae* appear at Shu'eib, Nablus, and Tulkarm (Pl. XX, 8), el Khanezir,⁷ Kafr Manda,⁸ and Tiberias (Pl. XXI, 4).⁹ In other cases the surface of the *tabula* is covered with ornament (see below, p. 69).

Next the *tabula* disappears and the cross in a circle is flanked by two *ansae* alone, as at Kh. Duweir (Fig. 19). Then the *ansae* become detached from the circle¹⁰ till they appear in a vestigial form at Kh. Dubil,¹¹ Umm er Remali (Pl. XXII, 2; flanking a rosette), and Baweire.¹² At 'Abda (Pl. XXII, 3)¹³ only the side bars are left, while the *ansae* themselves are suppressed.¹⁴

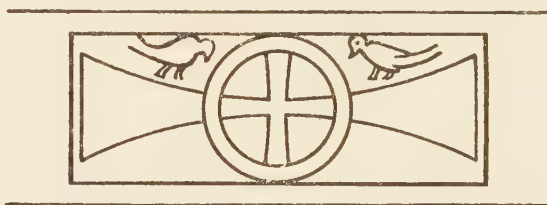


FIG. 19

Details of the Geometric Ornament

The *rosette* naturally comes first. There is an almost infinite number of variations possible of both the geometric and the naturalistic forms (i.e. rosettes produced by compasses and rosettes imitating open flowers seen from above). This bewildering variety naturally precludes a detailed discussion of all the types. We shall have to limit ourselves to the more common kinds of ornament.

A preliminary question arises, however: are these rosettes purely decorative or have they a symbolical value? Opinions are much divided on this point. MM. Dussaud¹⁵ and Cumont¹⁶ hold that both the six-petalled rosette and the 'whirling wheel' are symbols. The contrary opinion has been expressed by Watzinger,¹⁷ the late P. Ronzevalle,¹⁸ and

¹ Schwabe, *JPOS*, Vol. XVI, p. 158.

² For example, at 'Abda: *PEFA*, Vol. III, p. 101; at Nablus, Vincent, *RB*, 1920, p. 131.

³ Steuernagel, *ZDPV*, 1925, p. 311.

⁴ Macalister, *QSt.*, 1904, p. 251.

⁵ Steuernagel, *ZDPV*, 1926, p. 2; *ibid.*, 1925, pp. 364, 366.

⁶ Kh. Sammaqa, *SWP*, Vol. I, p. 319.

⁷ Steuernagel, *ZDPV*, 1925, p. 378.

⁸ Far'a, Steuernagel, *ZDPV*, 1925, p. 366.

⁹ *AR*, Vol. II, p. 75.

¹⁰ A parallel case of gradual deformation and decay is presented by the Christian inscriptions on lamps, cf. Gezer, Vol. II, p. 228, and *RAP*, p. 87.

¹¹ *FDE*, p. 249, Pl. XCI.

¹² Watz., Vol. II, pp. 75-6.

¹³ Oliphant, *QSt.*, 1885, p. 88.

¹⁴ Schumacher, *QSt.*, 1887, p. 86.

¹⁵ Oliphant, *QSt.*, 1884, p. 33.

¹⁶ *PEFA*, Vol. III, p. 102.

¹⁷ Dussaud, *Notes*, pp. 68-9, 89.

¹⁸ *MFOB*, Vol. VII, pp. 160-2.

E. Weigand.¹ Littmann² considers them an imitation of the old Oriental symbols, made with an apotropaic purpose. E. Weigand especially has poured scorn on the theory of a symbolic value of the six-petalled rosette, pointing out (a) that it is practically ubiquitous and (b) that it is produced spontaneously whenever a draughtsman begins to use his compasses. However, Weigand appears to try to prove too much. It seems, on the evidence following: (i) that the rosette was indisputably an old Oriental symbol, (ii) that it retained a certain apotropaic value even during the decay of paganism, (iii) that when it had been superseded by the symbols of later and more vital religions, it was retained out of respect for earlier decorative traditions, which, for our purpose, is equally significant.



FIG. 20

(i) Among the Babylonians six- or eight-petalled rosettes, with or without dots between the petals, appear as symbols of Ishtar³ or Addad;⁴ a winged rosette replaces the solar disk in Syrian seals.⁵ The rosette serves as a royal emblem of the Hittites.⁶ On Assyrian reliefs the divine hand appears out of a rosette⁷ (Fig. 20). In Phoenician monuments both in Phoenicia proper⁸ and in Carthage⁹ the six-petalled rosette occupies the place which corresponds to the face of the deity on these rough symbolical representations.

(ii) In Roman times the petalled rosette continues as a solar symbol,¹⁰ while the whirling wheel is used as a lunar one.¹¹ On the relief from Duweir in Syria (dated 295) we find two bulls facing each other;¹² above the one on the right is a rosette, above the other a whirling wheel. The same juxtaposition appears on two very late reliefs from Qiryat Hajja (Pl. XXII, 4-5). On the Suweida relief¹³ the multipetalled rosette is also clearly a solar symbol, placed in a prominent position in the centre of the lintel below a bust (of Zeus?) and between a hero and the monster he is attacking. Another rosette appears above the fighting hero. The symbolic rosette was also used as the arms of Dura-Europos.¹⁴ The persistence of the rosette as a symbol explains the Jewish Haggada that the picture of the sun was placed on Joshua's tomb, 'to say: it was he who stayed the sun'.¹⁵ Clearly, we have here a reminiscence of the rosettes over the Judaeon tomb-façades discussed above (pp. 61 f.).

¹ BZ, 1914/19, pp. 211-14.

² AAES, Vol. II, p. 32, n. 1.

³ Jastrow, *Rel. Babylonians u. Assyriens*, Bildermappe, Pls. 7, no. 26; 8, no. 27; 56, no. 225.

⁴ *Ibid.*, Pl. 5, no. 15.

⁵ Moort., pp. 33, 37 and Pls. XI, 8; XII, 7 (2nd mill. B.C.).

⁶ *Ibid.*, p. 48.

⁷ *Ibid.*, and Pl. XXVI (c. 1100 B.C.).

⁸ Ronzevalle, *MFOB*, Vol. XVI, Pl. VI, no. 112, compares the symbol of Tanit with the cross and rosette (*AAES*, Vol. II, p. 33, no. 22) on Christian amulets. Occasionally the place of the rosette above a Tau-cross is taken by the figure of the saint. Cf. also the amulets from el-Jish (Makhoul, *QDAP*, Vol. VIII, Pls. XXXI-II).

⁹ *CIS*, Vol. I, nos. 3709, 3803.

¹⁰ Cumont, *FDE*, p. 248; Dussaud, *Notes*, pp. 68-9, 89; cf. Ronzevalle, *MFOB*, Vol. XVIII, p. 139.

¹¹ Cumont and Dussaud, *op. cit.*

¹² Dussaud, *Notes*, p. 89; Renan, *Mission*, Pl. LVII.

¹³ Clermont-Ganneau, *EAO*, Vol. I, pp. 178-83; Dunand, *Musée*, no. 36.

¹⁴ *DPPA*, p. 274.

¹⁵ Rashi's commentary on Jos. xxiv. 30; Jud. ii. 9 quoted by Klein, *Jüd. Pal. Corpus Inscr.*, p. 30, n. 2.

Among the late monuments are many in which the rosette stands in a position occupied in other instances by unmistakable symbols. Thus it replaces an apotropaic vase on lintels between two altars¹ or above a garland. In a sarcophagus from Beit 'Imrin this place is taken by a *pelta*, a well-known apotropaic symbol.² Still clearer cases are those in which the cross appears in positions hitherto occupied by rosettes. In a Tiberias lintel³ a vase is flanked by two crosses; at Seilun (Jami' Sittin) by two rosettes. In *tabulae ansatae* inscriptions are sometimes replaced by rosettes (Kh. Dubil⁴, Kh. Kakhtiye⁵) by stars⁶ or by crosses (Deir Qal'a,⁷ Far'a,⁸ 'Ebta,⁹ Rihab,¹⁰ and 'Ain Jenni¹¹). The use of the cross in *tabulae ansatae* on lintels is clearly meant to protect the house, the symbol being the apotropaic equivalent of the inscribed formula met with frequently. If so, the use of the rosette in exactly the same position confirms that its symbolic value was remembered and appreciated, even when the religious feelings it had once expressed had been forgotten more or less completely. Such decline of religious symbols into marks of superstition is too common to need further elaboration.

(iii) The replacement of the rosette by the cross and its degradation to a flanking position indicate that in the Christian period it had lost its symbolic value. It had now become a simple piece of ornament, which was applied out of respect for tradition only. This must have been the case in most monuments of a pronounced Jewish or Christian character. It is certainly inconceivable that the rabbis who tabooed even the slightest contact with paganism should allow pagan symbols to be used in ossuaries and synagogues, unless we assume that their symbolic value was all but forgotten.¹² The same is true of Christian monuments.¹³

To illustrate the position at the end of the period with which we are concerned, we may use a modern parallel. Suppose a victory monument erected in our times which combines crosses, the national arms, figures of Victories, wreaths, &c. An observer unacquainted with the meaning of present-day symbolism would either assume that the symbols of religion and nationality—i.e. of forces which are still alive—are as devoid of meaning as Victories inherited from classical ornament; or he would think that all the signs are equally pregnant with meaning. Thus some elements of the decoration of ancient monuments may be mere copies of older Asiatic motifs sometimes coupled with revivals of antiquarian character, while other elements represent actual and living faith.

¹ Cf. the Seilun lintel (*AR*, Vol. II, p. 300) and an unpublished one from Qal'at Tantura with the lintels from Kh. el Khanezir (Steuernagel, *ZDPV*, 1925, p. 378) or Kh. 'Ain (*ibid.*, p. 113).

² Mouterde, *MFOB*, Vol. XV, pp. 99–101; cf. the sarcophagi from Nablus (Renan, p. 807) and esh-Shawahid (Steuernagel, *ZDPV*, 1925, p. 272), where the *pelta* appears between two wreaths, and the Hedera sarcophagus, Pl. XIX, 12.

³ Schumacher, *QSt.*, 1887, p. 224.

⁵ *Ibid.*, p. 39.

⁷ *SWP*, Vol. II, 317.

⁸ Steuernagel, *ZDPV*, 1925, p. 345.

⁹ *Ibid.*, p. 366.

¹⁰ *Ibid.*, p. 364.

¹¹ *Ibid.*, p. 311.

¹² The Haggada quoted on p. 68, n. 15, is the exception which proves our rule.

¹³ Cf. Ronzevalle, *MFOB*, Vol. VII, p. 160. But it is conceivable that the apotropaic value of the rosettes was still recognized and that they were used by the side of the cross as a concession to the 'demons'. Many similar instances of a superstitious desire to be on the safe side could be quoted from the European country-side.

We shall now pass to the single items of geometric ornament:

A. The ordinary six-petalled rosette (Fig. 21) is of such common occurrence¹ as to deserve only a passing mention. It was brought to Palestine, apparently from Egypt, in the Late Bronze period;² it appears with Iron Age figurines³ and on a Hellenistic slab.⁴ Its predominance on ossuaries and the lintels derived from them has been pointed out above (pp. 59 ff.). It occurs also on Nabataean monuments (of the first century A.D.)⁵ and on Parthian monuments of approximately the same date.⁶ Its use as a potters' mark on the bottom of the Jerash lamps (of the second century A.D.)⁷ is remarkable; the principal ornament of these lamps is inspired by Hellenistic prototypes; in contrast to which the marks

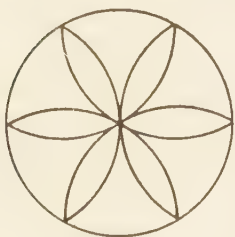


FIG. 21

at the bottom of the lamps are evidently in conformity with the native taste of the potters. The six-petalled rosette persists in Palestine till the end of the Byzantine period as on the 'Abda paintings⁸ and an 'Auja capital.⁹ In Syria the plain rosette is but slightly less common.¹⁰ Although it cannot be regarded as a purely Oriental motif,¹¹ the marked preference for the six-petalled rosette is an Oriental heritage and as such it appears at the Hagia Sophia.¹²

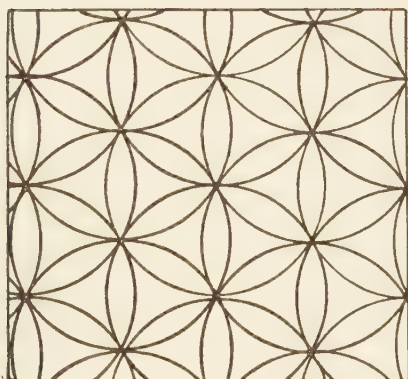


FIG. 22

The following variants of the common rosette are calculated either to create an endless pattern or to counteract the Oriental *horror vacui*, or both:

(i) The petals of one rosette form the sides of another and so form an endless 'all-over' pattern (Fig. 22). This way of using a rosette appears already in Mesopotamia and Egypt;¹³ it occurs on Assyrian,¹⁴ Phoenician,¹⁵ and Persian¹⁶ objects. It turns up as well on Gaulish¹⁷ and Alexandrine mosaics,¹⁸ but this does not of necessity deprive it of an

Oriental character. It happens in Parthian stucco.¹⁹ In Palestine we find it on several ossuaries (Pl. XXII, 6), on the reliefs of the Capernaum²⁰ and Chorazin synagogues (Pl.

¹ For its early history in the Orient see Baltrušaitis in Pope, Vol. I, pp. 619–20 and Debevoise, *AJA*, 1941, pp. 50–1.

² Hamilton, *QDAP*, Vol. IV, Pl. XXXII, 381; cf. Debevoise, *AJA*, 1941, p. 50.

³ *EIP*, Pl. 67, 15.

⁴ *Ibid.*, Pl. 18 (from Tell Sandahanna).

⁵ At Meda'in Salih: Jaussen and Savignac, Vol. I, pp. 317, 320, 387. Petra, BD, Vol. I, p. 323. Si': *PAES*, Vol. II A, p. 371.

⁶ Debevoise, *AJA*, 1941, p. 50.

⁷ Iliffe, *QDAP*, Vol. XI, Pl. XVI.

⁸ Jaussen, Savignac, and Vincent, *RB*, 1905, Pls. VI–VII, facing p. 80.

⁹ Wiegand, *Sinai*, p. 108.

¹⁰ But cf. *AAES*, Vol. II, pp. 158, 308; *PAES*, Vol. II B, pp. 66, 311; III B, nos. 857; de Vogüé, Pl. 49, Lassus, pp. 24, 36, 69, 76, 168; Froment, *Syria*, Vol. XI, p. 287; Mattern, *MFOB*, Vol. XVII, p. 34; Pl. XVI, 5.

¹¹ Weigand, *BZ*, 1914/19, pp. 211–14. For Alexandria note Schreiber, *Sieglin Expedition*, Vol. I, pp. 91, 188 and n. 40.

¹² Riegl, *St.*, p. 287.

¹³ Baltrušaitis, *loc. cit.*

¹⁴ (Assurbanipal) Pope, Vol. I, p. 620, Fig. 200.

¹⁵ The Dali patera (Cont., p. 1349).

¹⁶ Pope, Vol. I, pp. 619 f.

¹⁷ Gauckler, *Inv. d. mosaïques*, nos. 174, 203.

¹⁸ Schreiber, *Sieglin Expedition*, Vol. I, Pls. XII and XIV.

¹⁹ Andrae, *Die Partherstadt Assur*, Pl. 15 d–f.

²⁰ Orfali, p. 33, Fig. 42.

XXII, 8), and on Nabataean monuments.¹ The pattern of the frieze at Chorazin is exactly reproduced on a late Byzantine chancel-post from Kisra.² In Syria it can be followed till 597.³

Single rosettes in a circle were rounded off in the same way (Fig. 23). This type also appears on ossuaries (Pl. XX, 6) even in Africa,⁴ in synagogues,⁵ and on the doors of Jewish tombs;⁶ on lintels in Palestine, e.g. at 'Ajja (Pl. XXI, 6), Kh. er Rabi' (Pl. XXI, 8), Kurmul,⁷ Umm Remali (Pl. XXII, 2), 'Auja,⁸ as well as those from Baikat Abu Hadbe, Kh. er Ribba, and Bani Na'im mentioned above (Pl. XXI, 5 and Figs. 15, 17); on coffins at Deir Dosi⁹ (Fig. 10, p. 60) and Farkha (Pl. XX, 4); at Kh. Zei' in Trans-Jordan;¹⁰ in Syria at Dura-Europos¹¹ (Fig. 16, p. 65), Kh. Umtaiye,¹² Sinjar,¹³ Harem;¹⁴ at Parthian Assur¹⁵ and Seleucia;¹⁶ and on Byzantine monuments in Asia Minor¹⁷ and Constantinople.¹⁸

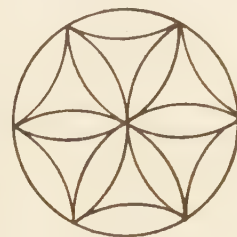


FIG. 23

(ii) Another way of combating the *horror vacui* is to fill with ornament the space between the petals of a rosette, or the squinches between the circle which surrounds it and an outer frame, usually a square. Occasionally both methods are combined.

The placing of dots or small circles between the rays of stars or the petals of rosettes (Fig. 24) is most common in the Orient from the oldest times.¹⁹ In Palestine it appears in the Bronze Age at Tell el 'Ajjul,²⁰ Sichem,²¹ on ancient Hebrew seals (round a pentagram).²² This design is reproduced on Jewish coins of Alexander Jannaeus²³, on a frieze of the Capernaum synagogue,²⁴ on the bottom of Jerash lamps.²⁵ There is evidence for the survival of this type in Byzantine or later lintels, at Lydda²⁶ and Baikat Abu Hadbe (see p. 64 above). It appears also in Byzantine Syria²⁷ and on Sassanian or Early Islamic ware.²⁸

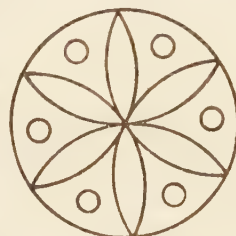


FIG. 24

From the stars the dots were naturally transferred to between the leaves of six-petalled rosettes. A certain influence may have been exercised also by the image of a flower

¹ e.g. the Rumman relief; Dalman, *ZDPV*, 1906, p. 203; the 'Abda lintel; Jaussen, Savignac, Vincent, *RB*, 1905, p. 76; the relief at Kh. Zei' seems to belong to the same class (de Vaux, *RB*, 1938, Pl. XVIII, 3).

² *QDAP*, Vol. X, Pl. XXVI, 7.

³ Mishrife, chancel-post, *PAES*, Vol. III B, no. 884; cf. also de Vogüé, Pl. 13, and Lassus, Pl. XIV, 1.

⁴ *RAO*, Vol. II, p. 79.

⁵ *AS*, Pl. IV b, and c. Ibillin (Pl. XXI, 7).

⁶ Dussaud, *Mon.*, p. 88; *EPh.*, Vol. I, Pl. 126.

⁷ Abel and Barrois, *RB*, 1929, p. 584.

⁸ Wiegand, *Sinai*, p. 108.

⁹ Weigand, *BZ*, 1914/19, p. 211.

¹⁰ de Vaux, *RB*, 1938, Pl. XVIII, 3.

¹¹ Cumont, *FDE*, Pl. XCI, 5.

¹² Gressmann, *Alt. Bilder zum A. T.*, Fig. 452.

¹³ *PAES*, Vol. II B, p. 67.

¹⁴ Froment, *Syria*, Vol. XI, Pl. XLVI, 1; cf. the similar five-petalled rosette, *AAES*, Vol. II, p. 33, no. 4.

¹⁵ Andrae, *loc. cit.*, Pls. 15, 16.

¹⁶ Pope, Vol. IV, Pl. 139 n; Waterman, *Tell Umar*, Vol. II, Pl. XXIV, 2 (Level II).

¹⁷ Rott, *Kleinas. Denkmäler*, p. 285.

¹⁸ Ebersolt and Thiers, *Les Églises de Constantinople*, p. 161.

¹⁹ At Susa Dussaud, *Syria*, Vol. IV, p. 311; Nivahand, 2200 B.C.; Dussaud, *ibid.*, Vol. XI, p. 173; at Ras Shamra Schaeffer, *ibid.*, Vol. XIX, p. 320; in Babylonia, Cont., p. 228 and Jastrow, *Religion Babylonians u. Assyrians*, Pl. 5, 15.

²⁰ Petrie, *Anc. Gaza*, Vol. IV, Pl. XVII.

²¹ Sellin, *ZDPV*, 1926, Pl. 30.

²² P. A. M. Inv. P. 3562 from Ophel.

²³ Reifenberg, *JPOS*, Vol. XIX, Pl. V, nos. 14, 14 a.

²⁴ Orfali, p. 40.

²⁵ Iliffe, *QDAP*, Vol. XI, Pl. IX.

²⁶ *AR*, Vol. II, p. 108.

²⁷ *AAES*, Vol. II, p. 33, nos. 17, 18.

²⁸ Pope, Vol. IV, Pl. 194 B.

looked at from above, with the stamens seen between the petals.¹ In Palestine we find the filling dots already on ossuaries (Pls. XXII, 7 and XXIII, 1). One of these shows a strong affinity to the design of rays with dots which has been found at the Ophel² (100 B.C.–A.D. 100). A Hauran stone window³ bears also a certain resemblance. Dots between the leaves of six-petalled rosettes appear on the synagogue friezes at Chorazin (Pl. XXII, 8), the 'Ibillin lintel (Pl. XXI, 7), and on a voussoir, probably Jewish, from Kurmul.⁴ From the same site comes a similar rosette combined with a cross on a capital; a combination which is repeated in the coffins at Deir Dosi.⁵ A rosette of this type occurs also on a late lintel at Kh. Abu Amir.⁶ In Trans-Jordan it may be found in the Sasanian palace at 'Amman,⁷ and with an all-over design at Kh. Zei'.⁸ In Syria it occurs in the Byzantine period at Deir Seta (A.D. 418) and Kfer,⁹ Behioh,¹⁰ Ma'arrat en No'man,¹¹ and Sinjar.¹²

The filling of empty squinches is another postulate of Oriental art.¹³ Among the earliest examples in Palestine we should note the small rosettes which fill out the empty spaces between the larger ones on the sarcophagi from the Tombs of Kings¹⁴ and elsewhere (Figs. 11–12, p. 61). This pattern has been followed by numerous ossuaries (Pl. XX, 2).¹⁵ The Jewish tomb-door from Kafr Yasif¹⁶ and the lintel from Tamra (Pl. XXIII, 4) have the same design. Among Byzantine monuments mention may be made (in Palestine) of an 'Abda capital,¹⁷ and in Syria of the Hauran stone windows¹⁸ and the rosettes from Deir Seta and 'Arshin.¹⁹

Certain objects combine dots between the petals with dots in the squinches, e.g. the Ophel plaque (see above), the ossuary (Pl. XXII, 7), and the 'Ibillin synagogue lintel (Pl. XXI, 7).

The placing of dots between the arms of a star or a rosette affected in due course also the cross, which, as has been pointed out above, is ornamentally in the direct line of descent from the rosette. Dots between the arms of the cross occur in Palestine at Kh. Rabi' (Pl. XXI, 8) and Buweira;²⁰ in Trans-Jordan at Ma'in.²¹ In Syria this type of decoration had an enormous vogue from the fourth to the seventh century. It is often combined with an A and Ω in the lower quarters of the cross.²² It occurs as well in Sinai.²³

¹ Cf. the Palmyra lamps from a tomb (A.D. 108), Amy and Seyrig, *Syria*, Vol. XVII, Pl. LII.

² Macalister and Duncan, *PEFA*, Vol. IV, p. 164.

³ de Vogüé, Pl. 13.

⁵ Weigand, *BZ*, 1914/19, p. 211.

⁸ de Vaux, *RB*, 1938, Pl. XVIII, 3.

¹⁰ de Vogüé, Pl. 137.

¹² *PAES*, Vol. II B, p. 67.

¹⁵ Also Wilson, *The Recovery of Jerusalem*, p. 494, and *Qobeş*, p. 68.

¹⁶ Dussaud, *Mon.*, p. 88; *EPh.*, Vol. I, Pl. 126.

¹⁷ *PEFA*, Vol. III, p. 101.

²⁰ *AR*, Vol. II, pp. 74 f.

²² Fourth century: de Vogüé, Pl. 99 (Kokanaya), *PAES*, Vol. III B, no. 1141 (A.D. 453); *ibid.*, no. 1154 (479), no. 986 (486); III A, no. 51 (489); *PAES*, Vol. II B, p. 62 (sixth century); Lassus, p. 157 (552); *PAES*, Vol. III B, no. 908 (564); Lassus, p. 50 (566); *ibid.*, p. 74 (574–5); *PAES*, Vol. III B, nos. 947 (577); *ibid.*, 845 (585–6); *ibid.*, 847 (591) and many undated examples, cf. de Vogüé, Pl. 49; *PAES*, Vol. II B, p. 311; Lassus, pp. 76, 89, 193; *AAES*, Vol. II, p. 33, nos. 8, 10, 12, 18.

²³ Lagrange, *RB*, 1896, 640.

⁴ Abel and Barrois, *RB*, 1929, p. 584.

⁶ *SWP*, Vol. II, p. 55.

⁷ *SEP*, facing p. 60.

⁹ *AAES*, Vol. II, p. 33, nos. 2, 4.

¹¹ Mattern, *MFOB*, Vol. XVII, p. 43.

¹⁴ Dussaud, *Mon.*, p. 45.

¹³ Riegl, *St.*, p. 62.

¹⁹ *AAES*, p. 33, nos. 1, 21.

²¹ de Vaux, *RB*, 1939, p. 79.

Some Jewish monuments in Palestine and Nabataean monuments in Trans-Jordan and the Hejaz have leaves inserted between the petals of the rosette, e.g. the ossuary (Pl. XXIII, 2);¹ the coffin from the Tombs of the Kings;² the Judaeen tomb façades at Jerusalem,³ Deir ed Derb,⁴ Magharat el 'Anab,⁵ Maqati 'Abud,⁶ Meda'in Salih,⁷ and a stone 'rubber' from Petra.⁸

This ornament leads directly to the typical Byzantine *croix fleurée*, with three-pointed leaves placed between the arms of the cross. This pattern occurs in Palestine at Jerusalem,⁹ at Tequ'¹⁰ (Fig. 25), and in Trans-Jordan at Misibta,¹¹ usually in chancel screens. The examples from Syria are numerous.¹²

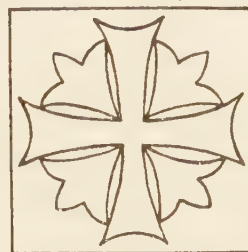


FIG. 25

Rosettes with the intercalated leaves stylized into lozenges appear on the Haifa garland sarcophagus (Pl. XX, 9) and in Syria.¹³ These too were transferred to crosses, e.g. at Khisfin¹⁴ and 'Abda (Pl. XXII, 3).¹⁵

B. The 'whirling wheel' is another motif to which a religious significance has been accorded by some and denied by others.¹⁶ It occurs in two variants, a geometric (Fig. 26) and a floral one (Fig. 27). At first sight it would appear that one of these two forms developed out of the other, but a survey of the evidence shows that both arose at the

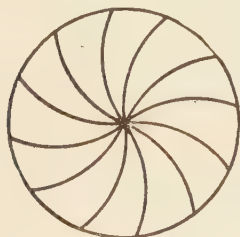


FIG. 26



FIG. 27

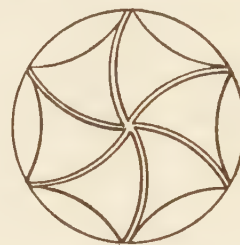


FIG. 28

same time. The floral form, however, died out early in the fifth century, while the geometric form continued into the Arab period. Undoubtedly we see here another instance of the greater survival power of the indigenous geometric forms.

The geometric variant of the whirling wheel appears on Jewish tomb façades,¹⁷ ossuaries¹⁸ (Pl. XXIII, 5), tomb-doors,¹⁹ and on contemporary Parthian stucco.²⁰ In one particular instance we may see how a three-petalled rosette on ossuaries begins to rotate²¹ (Fig. 28) and finally becomes a whirling three-leaved ornament on Byzantine reliefs.²²

¹ Qobes, p. 31.

² Dussaud, *Mon.*, p. 45.

³ Macalister, *QSt.*, 1900, pp. 57-61.

⁴ *SWP*, Vol. II, p. 313.

⁵ Macalister, *QSt.*, 1904, p. 247.

⁶ *SWP*, Vol. II, p. 364.

⁷ Jaussen and Savignac, p. 317; Vol. II, Pl. XXXVIII.

⁸ Horsfield, *QDAP*, Vol. IX, Pl. XXXII, 279.

⁹ Wilson, *Recovery of Jerusalem*, p. 285; Vincent-Abel, *Jérus. nouv.*, Pl. XXXVIII.

¹⁰ *SWP*, Vol. III, p. 368, and Sütterlin, *PfJB*, 1921, p. 33, Pl. IV, Fig. 6.

¹¹ Steuernagel, *ZDPV*, 1925, p. 280.

¹² Lassus, Pl. IV, 3; *AAES*, Vol. II, p. 33, nos. 6, 7, 13.

¹³ Lassus, p. 46, Fig. 50.

¹⁴ Oliphant, *QSt.*, 1885, p. 88.

¹⁵ *PEFA*, Vol. III, p. 102.

¹⁶ See p. 67 above.

¹⁷ *SWP*, Vol. II, p. 313; Macalister, *QSt.*, 1900, pp. 57-61.

¹⁸ Qobes, p. 68; Vincent, *RB.*, 1900, Pl. II.

¹⁹ Dussaud, *Mon.*, p. 88; *EPh.*, Vol. I, Pl. 126.

²⁰ Debevoise, *AJA*, 1941, p. 52; Andrae, *Die Partherstadt Assur*, Pl. 17 b, c; Waterman, *Tell Umar*, Vol. II, Pl. XI, 1 (A.D. 43-110).

²¹ *AR*, Vol. II, p. 344.

²² Mader, *ZDPV*, 1930, Pl. 11, and *SWP*, Vol. I, p. 192.

As usual, the ossuary type of decoration is continued on the garland sarcophagi: e.g. at 'Imwas,¹ Nablus (Pl. XXI, 2), el Khanezir, and Kh. 'Ain.² It appears also on the bottom of the Jerash lamps (cf. p. 71)³ as well as on a third-century altar from Banias, as yet unpublished.⁴ Among the late Byzantine or even Arab monuments which repeat this ornament we may quote the ornamented slab at Abu 'Amir,⁵ the capital at 'Abda,⁶ and the door-posts from Qiryat Hajja (Pl. XXII, 4). In Sinai⁷ and in Syria the wheel, to which a symbolic value has been attached, occurs on pagan⁸ and Christian monuments alike.⁹ Isolated instances appear in medieval Byzantine decoration in Asia Minor¹⁰ and Constantinople.¹¹

The floral type of the whirling wheel also occurs on ossuaries (Pls. XX, 1; XXIII, 5); from which it passed to synagogue decoration (Capernaum¹² and Chorazin: Pl. XXIII, 8). In

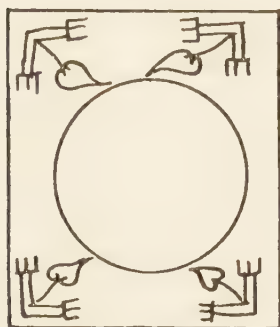


FIG. 29



FIG. 30

the neighbouring countries we find it at Qasr Rabba and Palmyra (tomb of A.D. 108).¹³ Its latest appearance in Syria is at Banqusa (fourth century)¹⁴ and el Uber (602).¹⁵

C. Other elements of decoration of a geometric character which establish links between Jewish and Byzantine ornament are:

(i) The angular corner decorations which appear on ossuaries (Pl. XXIII, 6; Fig. 29),¹⁶ on a Byzantine relief at Tell Tihin¹⁷ (Fig. 30), and on a Byzantine door from Umm er Rejim.¹⁸ According to Rostovtzeff¹⁹ they are typical of the so-called Coptic stuffs known as γαμμάδια.

(ii) The two intersecting squares (Fig. 31), which occur in the third century on the

¹ *AR*, Vol. II, p. 157.

³ Iliffe, *QDAP*, Vol. XI, Pl. IX.

⁵ *SWP*, Vol. II, p. 55.

⁸ Renan, *Mission*, Pl. LVII.

⁹ *AAES*, Vol. II, p. 33, no. 1, Deir Qita (418), Deir Sanbil (de Vogüé, Pl. 151) and *PAES*, Vol. III B, no. 1081 (456); cf. *PAES*, Vol. III B, no. 1089; Lassus, p. 76; Mattern, *MFOB*, Vol. XVII, Pl. XVI, 5, and Froment, *Syria*, Vol. XI, p. 287.

¹⁰ Rott, *Kleinas. Denkm.*, p. 285.

¹¹ Ebersolt and Thiers, *Les Églises de Constantinople*, p. 161.

¹² *AS*, Pl. V a.

¹⁴ *AAES*, Vol. II, p. 33, no. 3.

¹⁶ *Qobes*, p. 66.

¹⁸ Lassus, p. 36.

² Steuernagel, *ZDPV*, 1925, pp. 113, 378.

⁴ In the possession of Vester & Co., Jerusalem.

⁶ Wiegand, *Sinai*, p. 108.

⁷ Abel, *RB*, 1907, Pl. II, 1.

¹³ Amy and Seyrig, *Syria*, Vol. XVII, Pl. XLIII.

¹⁵ *PAES*, Vol. III A, no. 7962.

¹⁷ Jaussen and Savignac, Vol. I, p. 25.

¹⁹ Rostovtzeff, *JRS*, 1942, p. 92.

synagogue at Kh. Qanaf¹ and on a lamp from Beit Nattif² (Pl. XXIII, 10) reappear on Byzantine fonts at Tequ',³ on lintels in Sinai,⁴ Qahf,⁵ and Buweira,⁶ and in Syria on several lintels⁷ or doors.⁸

(iii) The triple intertwined 'figure of eight' (Fig. 32) appears on synagogue decoration at Capernaum⁹ and Esthemoa¹⁰ (Pl. XXIII, 11). It occurs also in Palestine on sixth-

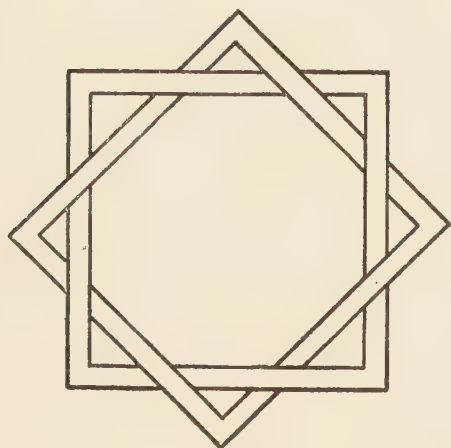


FIG. 31

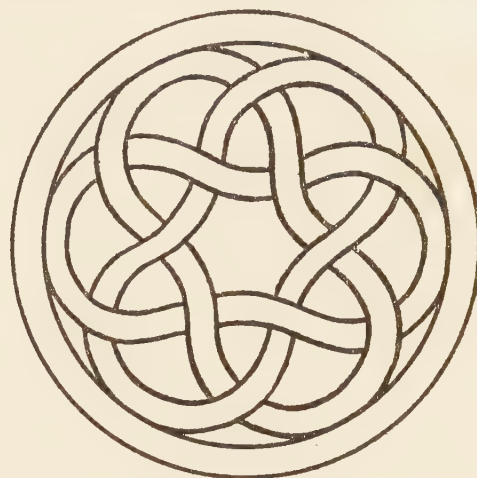


FIG. 32

century mosaics at Mukhmas,¹¹ on lintels at 'Aqraba (Pl. XXIII, 3), Baikat Abu Hadbe (Fig. 15, p. 64 above), on a screen from Jerash¹² (Pl. XXIII, 9), and in Syria, with additional complications, at Betursa (fifth to sixth century).¹³

(iv) In conclusion we should note the intersecting rows of semicircles which appear on ossuaries from Gezer¹⁴ and Alexandria,¹⁵ and which survive in the late lintels found at Kisra (Pl. XXIII, 7) and Zeita (Pl. XXIII, 12).

Addenda and Corrigenda to Part I (QDAP, Vol. X)

pp. 129 f. For the Parthian type of representations of riders cf. also the paintings in the Dura synagogue (e.g. du Mesnil du Buisson, *RB*, 1934, Pls. XXXIII, 2, XXXIV, 2).

pp. 131 f. The angular bend of the flying figure appears also in the West under Oriental influence, cf. the carved wooden gate of S. Ambrogio, Milan (Wulff, *Altchr. u. Byz. Kunst*, Vol. I, Pl. IX).

¹ Sukenik, *JPOS*, Vol. XV, Pl. XXII.

³ *SWP*, Vol. III, p. 368; Sütterlin, *PJB*, 1921, Pl. IV, Fig. 5.

⁵ *SEP*, p. 120.

⁷ ed Deir (Mattern, *MFOB*, Vol. XVII, Pl. XXXIX, 2); Dauwar (*AAES*, Vol. II, p. 33, No. 8), Brad (*PAES*, Vol. II B, p. 311).

⁸ Lassus, p. 36; *PAES*, Vol. II B, p. 66.

¹⁰ Mayer and Reifenberg, *JPOS*, Vol. XIX, Pl. XXX, 2.

¹¹ Hamilton, *QDAP*, Vol. I, Pl. XXXIX.

¹³ de Vogüé, Pl. 43.

¹⁴ *Gezer*, Vol. I, p. 399, Fig. 203, no. 2. The other Gezer ossuary (*ibid.*) bears great similarity in arrangement to the Christian relief found at Kh. Daweimin (Mülinen, *ZDPV*, 1908, pp. 146 f.).

¹⁵ Schreiber, *Sieglin Expedition*, Vol. I, p. 188.

² Baramki, *QDAP*, Vol. V, Pl. XI, 23.

⁴ Abel, *RB*, 1907, Pl. II, 1.

⁶ *AR*, Vol. II, p. 75.

⁹ Orfali, p. 34, Fig. 44.

¹² P.A.M. Inv. no. 41. 1004.

- pp. 136–8. The difference between the Oriental and Occidental ways of treating the eye appears very clearly on two contemporary statuettes found at Olympia, R. Hampe, U. Jantzen, Suppl. to *JDAI*, 1937, p. 72. For the Oriental framed eye see also the lion masks on a Sidon coffin of the time of Trajan (Mercklin, *AA*, 1926, cols. 296, 297).
- p. 138. The human figures on capitals are discussed by Debevoise, *AJA*, 1941. With the Mafjar warrior cf. also Woolley, *Development of Sumerian Art*, Pl. 20 b (I owe this reference to Mr. M. Weinstein).
- Ibid.*, ix. With reference to the Beth Alpha mosaic: an earlier instance of the tendency towards 'frontalism' is to be seen in the Beit Jibrin pavement of Antonine date (Avi-Yonah, *Mosaic Pavements in Palestine*, Pl. II below). The rider and bear-hunter both regard the public and not their prey. It is quite possible, however, that this pavement may be Constantinian.
- p. 139. Note also the way in which the bow of the Archer is placed beside the hand of this figure, and not gripped.
- p. 140. For the zigzag on arches compare also the Sassanian (?) palace at 'Amman, *SEP*, p. 60. The ossuary referred to as possibly non-Jewish is certainly Jewish. For aediculae on ossuaries cf. also de Saulcy, *Jérusalem*, Pl. facing p. 288.
- p. 142. For the row of arcades cf. also Watzinger, *Holzarkophage*, p. 60, and *Archäol. Anz.*, 1938, col. 738, Fig. 47; see also Donald F. Brown in *AJA*, 1942, pp. 389–99.

Summary and Conclusion

The general trend of Palestinian 'sub-antique' art during the Roman and Byzantine periods has been already outlined in the introduction to this article (*QDAP*, Vol. X, pp. 105–12). The aim of the preceding pages has been to establish the existence of this current and to trace its affiliations. It now remains: (i) to sum up as precisely as possible such 'elements' (appearing in Palestinian art during the period under review) as may be justly regarded as of Oriental origin; (ii) to define the relative strength of the various Oriental influences which contributed to that non-classical current.

(i) The first tendency, noticeable especially in representational art, is the striving after the utmost clarification of the subject. This is usually achieved through an analysis of its salient features, either by spreading them out in one plane or by a change of their real positions, so as to bring all of them into view. If necessary, such details are added together one by one by placing them side by side; alternatively such secondary features as might conceal the essential ones are removed.

If this tendency to clarification were followed far enough, pictorial representation would be reduced to a schematic sum-total of the various details of the subject. However, it is counterbalanced by a parallel tendency to verisimilitude in details of dress, accessories, hair patterns, &c. Together this pair of antithetic tendencies corresponds to the normal mental image of things when not corrected by direct observation, viz. a tendency on the one hand to an abstract outline, while on the other, characteristic details stand out in startling clearness. These two tendencies, therefore, make up the first essential element of Orientalizing art, the 'memory picture' or *conceptual art*.

The second point to be noticed is the emphasis laid on features expressing a dominant quality of the subject. The method used to achieve this aim is the exaggeration of the selected features in size (with a corresponding atrophy or elimination of others not so favoured) or, alternatively, the bringing into prominence of the selected characteristic

by separating it from its surroundings, by bordering, by picking out in stronger relief, and by various other technical devices.

In representations of human beings the quality stressed is either spirituality (corresponding to the religious preoccupation of Oriental mentality) or strength. The features through which the former quality is mostly expressed are the eyes, which are magnified in size and brought into prominence by a special frame or by the superimposed arch of joined eyebrows. The size of the head may also be increased in proportion to the whole of the body. The stiff and solemn frontal pose also tends to the same end, as well as the covering of the face of the subject with symbolic leafage or the placing of religious symbols on the head, which are sometimes as large as the whole figure. The quality of bodily strength, on the other hand, is emphasized by exaggerating in size the functional limbs (arms and legs, hands and feet) or alternatively, by indicating potential strength by the breadth and squareness of the shoulders or a heavy muscular development.

In the case of animal representations, the dominant quality is ferocity (indicated by the size and posture of teeth and claws) or strength or massiveness or speed. The tendency to stress the dominant feature to the detriment of all others affects also the representation of inanimate objects.

This tendency to exaggeration is but a subordinate feature of a general character of Oriental art, viz. its *emotionalism*, which contrasts so strongly with the calm and detachment of classical art.

Both the conceptual and the emotional aspects of Oriental art form together one of its fundamental characteristics, which one may define as '*expressionism*' in the general sense, i.e. signifying the use by the artist of his work as a vehicle for projecting his preconceived ideas or images into the outside. This type of Oriental expressionism differs, however, from its modern counterpart by the small scope left for the subjective contribution of the individual artist, as compared with the strength and vitality of the inherited collective tradition. The resulting lack of realism in the representational work of art does not deeply concern the Eastern artist, as it is counterbalanced by the insistence on the spiritual or esoteric values of the subject and is thus far more congenial to the Oriental mind. This 'expressionistic' conception dominates Oriental art in the representational branch of the subject.

In non-representational, decorative art there is an evident preference for the reduction of the subject to an abstract shape, derived from geometric forms and brought as close to them as is possible. This is paralleled by a tendency to a symmetrical repetition of the design, i.e. patterning. In pictures of human beings patterning was by necessity restricted to details, such as the drapery or the hair; only in rare instances were some parts of the body itself reduced to a geometric shape, e.g. when the ears are represented by a series of concentric circles. In the case of animals there was more occasion to geometrize and to form patterns. Examples are furnished by the symmetrical composition of 'hieratic' processions of animals; in single subjects, by the adoption of a stylized stiffened pose or the covering of the body in hatching or cross-hatching. Selected features, such as furs or feathers, were patterned, either by following their natural aspect or by adopting an abstract design and abandoning all pretence to an imitation of nature. To the same

heading belongs the treatment of such features as teeth and mane of beasts as an ornamental border to the mouth or body.

In the case of ornament derived from plant forms this geometrizing tendency had a still freer play. It appears in the general stiffness of the composition, in the transformation of floral rosettes into geometrical ones, in the change of winding scrolls into a succession of circles, triangles, and trapezia; also in the transformation of the natural pattern of the bark of trees, the scales or skin of fruits, the veining of the leaves into abstract designs.

This dry geometrizing proclivity of Oriental art in the details is again counterbalanced by an antithetical tendency, the striving after richness of effect in the whole. This is expressed in the *horror vacui* of Oriental art, which leaves no space uncovered by ornament; in the endless repetition achieved by its 'all-over' patterns, and in the preference for an optic pattern (as opposed to an abstract one) in which the play of light and shadow over the surface of the design replaces the effect of the outline of the shapes themselves.

This second pair of antithetic tendencies, patterning combined with a striving after effect, produce together the typical Oriental *stylization*, the second basic element of Oriental art.

If we discard all considerations of a technical nature and disregard as well the personal equation (since we are dealing with art as a whole and not with the individual artists) we arrive, by using Strzygowski's well-known formula¹ at the following definition: The native Palestinian artist of the Roman and Byzantine periods expressed a Western subject with an Oriental content by using (voluntarily or involuntarily) the motifs of his ancestral inheritance; the resulting 'form' showing—in proportion to the strength of the ingredients—a more or less manifest tendency to expressionism and stylization, as defined above: the underlying cause for this current of non-classical art being the protest of an oppressed Oriental psyche against an alien civilization imposed upon it.

(ii) Our second task is to determine the origins of the Oriental substratum thus defined. Any research into the true origins of any Oriental influence requires as a preliminary stage the elimination of the intermediaries whose presence confuses the issue. *Prima facie* the countries which have exercised the strongest influence on Palestinian art are the Nabatene in the post-Hellenistic period, and Syria both before and after Alexander. It is evident, however, in the case of Syria, and presumable also in that of the Nabataeans, that both these countries only transmitted art currents which came from farther away. In pre-Hellenistic Syria Hittite influences combined with those from beyond the Euphrates. The Hittite tradition was to a certain extent blended with that of the Tell Halaf culture and became later mixed with the Assyrian, and to a smaller extent with Persian, elements. However, Assyrian art is itself descended from Babylonian, through which it received Sumerian and Elamite traditions and perhaps even some of the inheritance from the Indian Harappa culture. In Assyrian art itself these elements mixed with a strong strain of Central Asiatic steppe art.

In the age which followed Alexander and in the period of Roman rule in Syria, the

¹ See Millet's preface to Strzygowski, *L'ancien art chrétien de Syrie*, p. xviii.

hellenization of Asia Minor effectively cut off direct northern influences, leaving the field free to the eastern trends proper. In these times, therefore, Syrian art was exposed to a strong current of Late Babylonian, Parthian, and Sassanian art, which passed through Dura-Europos (with Palmyra as a secondary conductor). The same Iranic-Mesopotamian influences filtered across the desert to the Nabatene. On the other hand Phoenicia now played no more than a quite subordinate role and so transmitted comparatively little of the artistic inheritance of Ancient Egypt.

After eliminating the intermediaries, historical considerations next require us to divide the possible influences into two strata: those of the periods preceding Alexander, which might indeed have come directly from their countries of origin in later periods, but which might as well have penetrated into Palestine in the period preceding the Hellenistic invasion and become absorbed in the mass of traditions inherited by the native Palestinian artist from the Bronze and Iron Ages. The second and residual group would be then composed of influences of non-classical character strictly contemporary with the works of art here reviewed.

As regards the *representation of the human figure* the dominant influences among the historical cultures are the Hittite and the Sumerian-Elamite; the former transmitted through Syria, the latter to some extent by Babylonian, but especially by Assyrian art. The Assyrian is undoubtedly the most powerful individual influence exercised directly on the representation of the human figure by any of the ancient Oriental arts; it transmitted also a faint trace of Central Asiatic steppe art. In comparison with the Assyrian and Hittite influences, that of Persia is weak and that of Egypt almost negligible. The native Bronze Age and Iron Age arts have contributed some elements, but much less than what one could expect.

Of the 'contemporary' influences on the representation of the human figure, we find that the Parthian was the strongest individually; it passed by way of Dura, and, to a less extent, by way of Palmyra. The Sassanian share is weaker, and that of Roman Egypt very feeble indeed.

In *representations of objects* there is almost no direct inheritance noticeable from the arts of the pre-Hellenistic Orient, but there is some trace of local (Bronze and Iron Age) influence. The principal external stimuli came apparently from Parthia and Sassanian Persia, and, to some extent, southern Arabia.

Hittite art was the strongest single factor in *animal representations*, as far as ancient Oriental art is concerned; there is also a surprisingly strong admixture of Central Asiatic elements. Another current of art originated in Sumer and Elam and passed through Babylonia, Assyria, and Persia; here the Assyrian parallels are most numerous. Canaanite and Israelite influences are also remarkably powerful in this class of subject.

As regards direct contemporary influence, we must note the feebleness of the Parthian or Sassanid elements, as compared with the influences of the past.

In *floral ornament* the predominant influence from the past is the Assyrian, with its Sumerian background; but there is a relatively strong strain of Ancient Egyptian ornament or of Egyptian ornament transmitted through the Phoenicians. The native (Bronze and Iron Age) influences are also marked. Among the contemporary arts there

is a considerable influx of Parthian elements, transmitted, however, rather through Palmyra and the Nabatene, than through Dura-Europos and the northern route.

As regards *geometric ornament*, native work, both past and present, takes the first place. As is the case in floral ornament, the rather inconsiderable Oriental influx comes principally from Parthia, by way of the Nabatene rather than across the Euphrates and Syria.

Taking all kinds of subjects together, we find that the decisive Oriental influences came from the north and north-east, and especially the latter, with Assyrian art as the strongest factor among the inherited elements (with Hittite a good second) and Parthian art dominant among the contemporary influences. This is a complete reversal of the position in the Bronze and Iron Ages, when Egyptian influences were predominant in Palestine; in the Roman and Byzantine periods Oriental art in Palestine was either locally created or inspired from Mesopotamia; it influenced in turn the art of Coptic Egypt.

In covering the whole vast field of Oriental influences it has been hardly possible to give more than a bare outline of the subject. Before the subject is exhausted a detailed investigation is required into every single element and every class of object. New discoveries are constantly being made in this field; as an example may I refer to Professor Albright's recent study (*BASOR*, No. 85, pp. 18-27) in which he has traced the representations of two cressets on a Hellenistic painting from Marissa to their Oriental prototypes. The aim of this study will be fully accomplished if it stimulates such research into the details of one of the most crucial and fascinating problems in the history of art, viz., the momentous transformation of artistic values which accompanied the exit of classical culture from the Orient.

M. AVI-YONAH



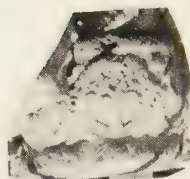
ORIENTAL ELEMENTS IN PALESTINIAN ART



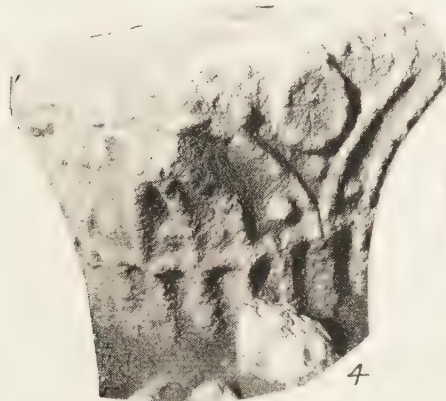
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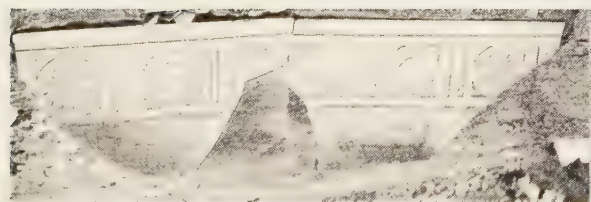
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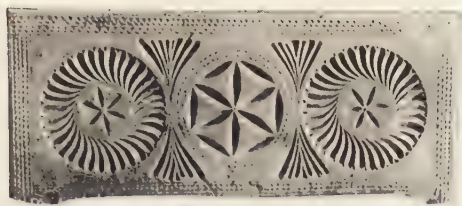
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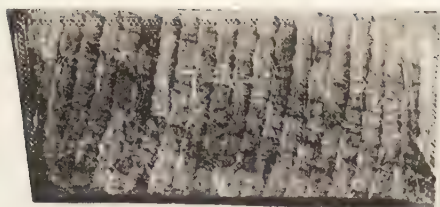
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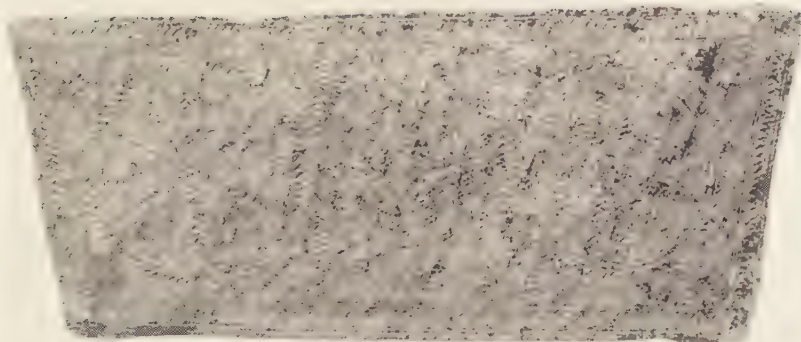
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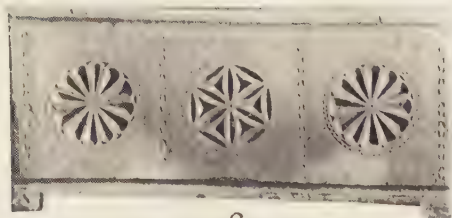
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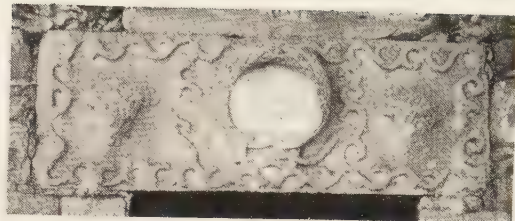


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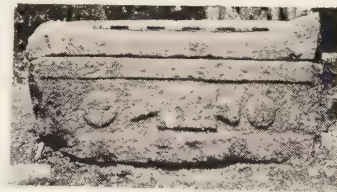
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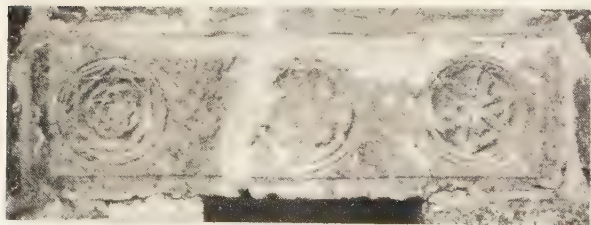
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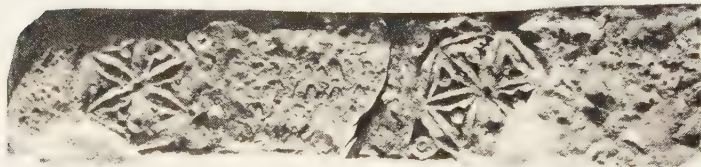
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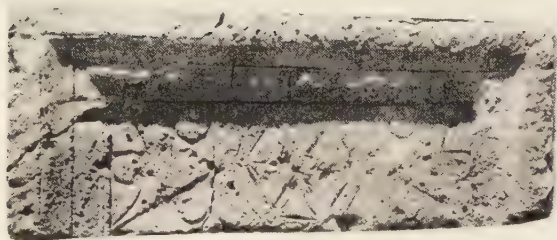


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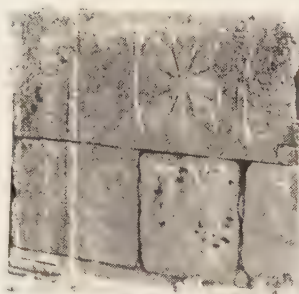
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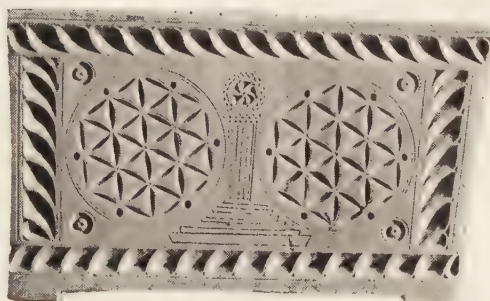
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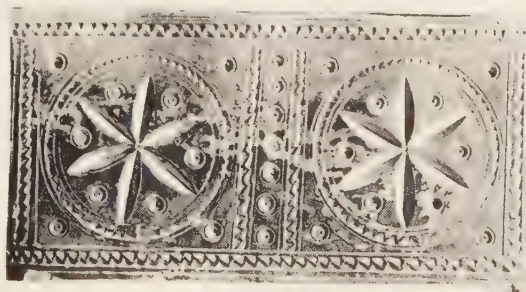
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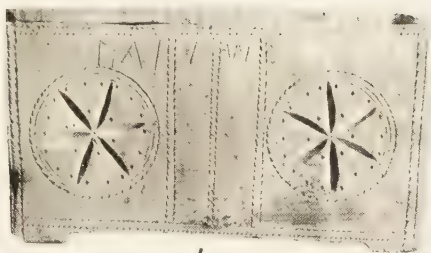


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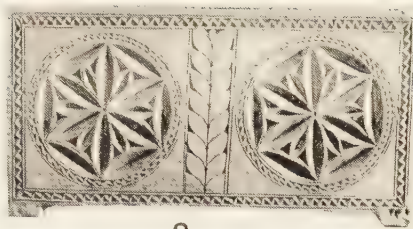


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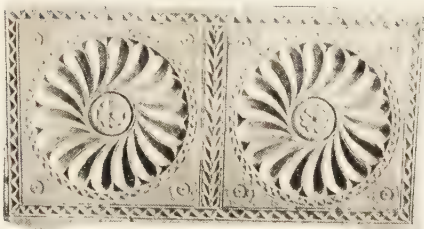
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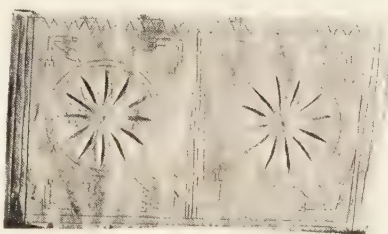
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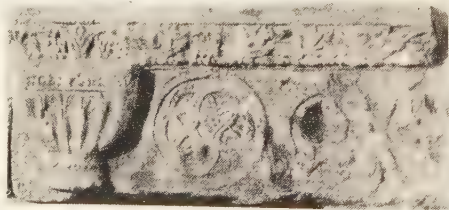
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ORIENTAL ELEMENTS IN PALESTINIAN ART

A ROMAN FAMILY VAULT ON JEBEL JOFEH, 'AMMAN

THIS tomb was discovered by a stone-cutter in the course of blasting operations, a charge blowing down part of the roof of the chamber *AG* (Plan, Fig. 1) and giving access to it by a small hole. The find was reported at once, and the Department of Antiquities took over excavation of the tomb; four labourers were employed to lift and carry, and the actual clearance was done by Hasan Awad el Qutshan, who also undertook the work of cleaning and repairing the pottery and small objects. It is thanks to his care and patience that so much has been recovered in such good condition. Upon completion the tomb was handed back to the owner of the land, who proposes to use it as a dwelling; it is situated at the foot of the south-west slope of Jebel Jofeh. The plan and section, figs. 1 and 2, and all the photographs are by R. Richmond Brown.

Description of the tomb. The complex consisted of a large main hall, approximately 8 m. $\times$ 7.20 m., approached from the west by a flight of steps and entered through a narrow doorway with the stone door still in position (Pl. XXIV, 1). The lintel and jambs of the door had a simple moulding, and had obviously been removed from some other construction and adapted to fit the stone door, as the lines of the moulding on the lintel did not coincide with those of the jambs. On the east side of the main hall were three small chambers, *AA*, *AB*, and *AC*, and on the north were four chambers, *AD*, *AE*, *AF*, and *AG*. The whole complex appears to have been originally a natural cave, which had been divided up into the various chambers by the building of walls on the west, north, and east sides, only the south side being natural rock. The chambers on the east had been enlarged by rock cutting, and it seems probable that *AG* had been entirely cut out of the rock for the purpose of enlarging the capacity of the vault.

In the main hall were three small sarcophagi, and eight full-size graves sunk into the floor; of the chambers, only *AB* and *AD* had separate graves, that in *AD* being no more than a shallow depression in the floor. In the original layout of the tomb the roof of the main hall had been supported on four built pillars, cross-hatched on the plan, and the graves were cut in the free spaces of the floor. But at some period of its use there seems to have been a settling of the rock; the pillars cracked badly and the centre of the roof fell down. To avoid further collapse, three arches were constructed, the footings of two of which rested on the covering slabs of some of the graves (Pl. XXIV, 2). The hard stratum of rock which forms the floor of the whole cave slopes steeply from south to north (see section Fig. 2); the rock above this stratum consists of a very soft, porous, chalky limestone with thin layers of flint and large blocks of extremely hard crystalline limestone embedded in it. The fall of some of these blocks of hard stone, caused by the stone-cutter's blast, made the work of clearance very arduous and occasionally rather dangerous. Fortunately the roof of the main hall was quite undamaged, and the chambers on the east had only a layer about 30 cm. deep of chalky rock, which had fallen off gradually in the course of centuries. Two large blocks had fallen in *AD*, rather more in *AF*, and in *AG* there were nearly 5 m. of fallen roof to be cleared away before the bone level was reached. The fall of the roof in *AG* revealed, about 2 m. above the floor-level

of the chamber, another grave which was not connected with the main complex, being closed with five flat stones on what was originally the rock scarp. The bones in this grave were in an excellent state of preservation, but no objects were found in it. The whole tomb was exceptionally wet; there were even colonies of toads living in graves *A* and *G* (for how long?), and it is remarkable that the small objects are in such a good state of preservation. There had been an ancient robbing of the burials, shown by the fact that graves *A*, *F*, *G*, *H*, *J*, and sarcophagus *K* had had some of the covering slabs removed from them, and the original sealing of the entrances to all the side chambers had been broken down. The stone door was slightly ajar, and there was no trace of the wooden bolt which originally closed it from the outside.

Section Y - Z

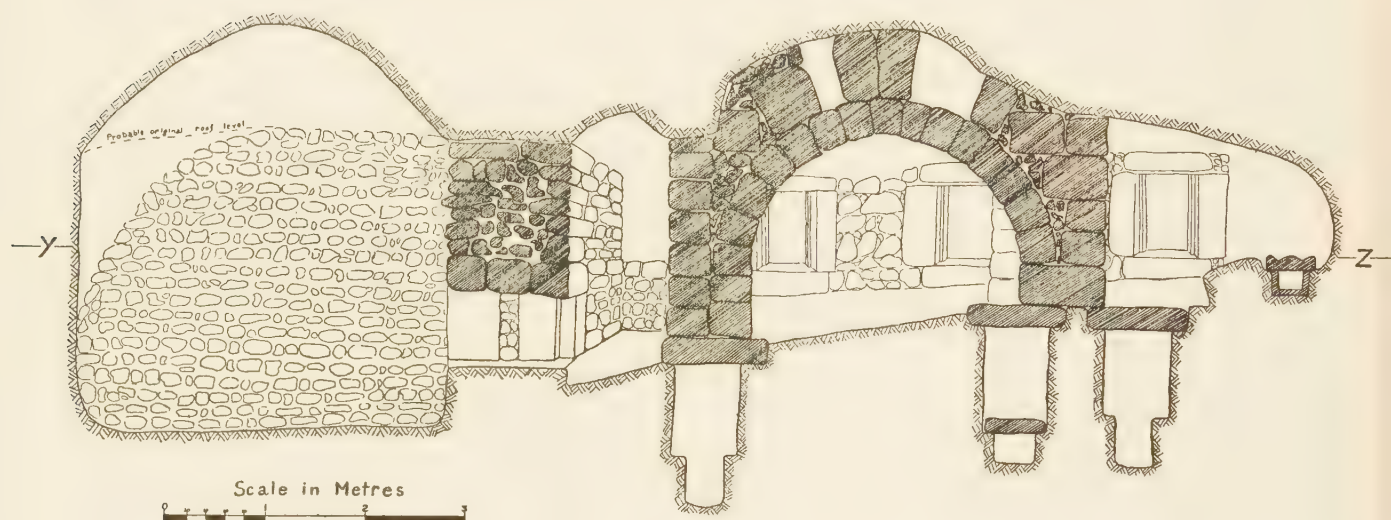


FIG. 2

Condition of the contents. Main Hall. As mentioned above, many of the graves had been opened anciently, and the bones in these, with the exception of *H*, were completely disturbed. Owing to the wetness it was not possible to preserve any of the bones except those in the extraneous grave in *AG*. Sarcophagus *C* contained the remains of three very small babies, no objects; the lid of *K* had been removed, and it contained only a few fragmentary bones of a small child; *L* had apparently been robbed and the cover replaced, for it too contained only fragmentary bones of a child. The bones in the unopened graves were also beyond preservation, and very few objects were found in any of the graves, with the exception of *G*. The pottery in the main hall, which constitutes about 80 per cent. of the whole, was fairly well preserved; a few pots had been broken by small falls from the roof, and some had developed bad outgrowths of salts on the surface. The mud used in the construction of the walls and arches was as fresh and damp as on the day the work had been finished, and the fingermarks of the workers were still clearly to be seen.

The side chambers. There was not a single intact skeleton in any one of the rooms, and the condition of the remains was the same in each. Over the whole floor was a dark layer, varying between 20 and 40 cm. deep, of bones, many incomplete, and of what for want of a better term I can only call bone mash, a dark-brown, powdery substance, in which could occasionally be distinguished harder fragments of bone. Many of the bones showed signs of having been burnt, and there were occasional patches on the floors which looked as if a fire had been lighted there, but there was absolutely no sign of smoke on any of the walls or stones. In some parts the surface of the floor and some loose pebbles had developed a thick, hard, dark-brown skin. Most of the small objects found in these rooms were scattered at random but it was surprising how often a ring would occur near or even on a finger bone, bracelets near or on arm bones, and beads near fragments of skull. On the top of this dark layer was a layer of naturally fallen roof, and in chambers *AF* and *AG* there were more bones on top of this, quite white and unburnt, but still no complete skeletons. Robbery alone does not seem sufficient to account for this state of affairs, and one is left with the impression that these are secondary burials, the original interment or laying out (or partial cremation) of the body having taken place elsewhere, though the fact that skeletons were complete in the unopened graves rather contradicts this. Many more examples of tombs of the period are required before a definite pronouncement can be made.

Inventory of Objects

General remarks. The pottery was numbered in the tomb as found, for the sake of possible groupings, and these numbers have been retained in the following lists and are shown on the plan, the small objects being numbered on consecutively from the last pottery number. The small objects are listed under their various materials, with brief notes on such techniques as are of interest, and a complete list by numbers of the contents of each grave or chamber is given in the table (p. 94 below). There is no visible difference in style between any of the groups, the same thing being repeated in every chamber and in the definitely early graves (*B, D, E, F, G, J*).

The pottery. The greater part of this was found in the main hall, but again the grouping seems to mean very little. Many of the vessels may have rolled down the steeply sloping floor, in view of the large accumulation in the north-east area. The early graves produced no pots. In all 211 complete and reconstructable pots were recovered, of which 118 are lamps; cooking pots and small flasks of type 7 (Pl. XXVI) are the next most common, accounting between them for 47 of the remaining vessels. In view of the quantity it is not practical to give a detailed description of each individually. Some miniature flasks of types 37 and 86 (Pl. XXVI) contained kohl, and two of them also had the bronze kohl stick still in them. The condition of the pottery on the whole is good, though some vessels are badly encrusted with salts.

The technical quality of the pottery is just about as low as it could be; forms are irregular, unbalanced and haphazard, and lack finish of any kind. Small flasks of types 7, 37, and 86 (Pl. XXVI), and 18, 124, and 149 (Pl. XXV), were probably made by the 'pinched off' technique, though actually they were cut, probably with a piece of metal,

rather than pinched off, and no attempt was made to finish off the base. Types 5 (Pl. XXV) and 29 (Fig. 3) alone have a ring base, and the latter type does not seem to be a local product; most others are finished off by turning the pot upside down on the wheel and closing the end with the thumb and first two fingers, which creates a slight depression with a knob in the centre: there is little evidence of turning. Only in types 41 and 98 (Pl. XXVI) does the neck appear to have been applied separately. There being no broken examples of 5 it is not known what technique was followed; but there, too, the neck was most probably applied. The rest, even such forms as 6 and 17, are made, rather surprisingly, all in one piece. Firing is usually good and fairly even, and where soft is clearly deliberately so.

In general it is the rather unimaginative ware of everyday domestic use, and its chief interest lies in the fact that it is a homogeneous group and can be fairly well dated by the coins to the mid-late third century A.D.

The lamps (Pl. XXV) are as poorly made as the rest of the pottery, but the firing is casual in the extreme: so much so that an attempt to wash some specimens resulted in their complete dissolution when they were put in the water. One lamp only, no. 35, is really well fired; a few can be called medium. The impression is produced that they were made only for funerary purposes, though from the amount of the blackening of the spouts some seem to have had considerable use.

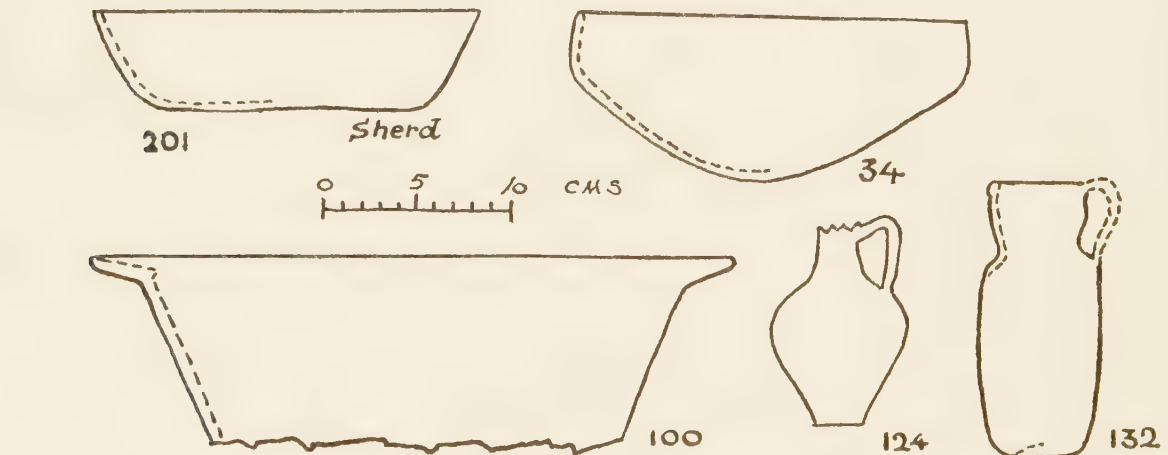


FIG. 4

There are many varieties of patterns, but a great number are so bad that no definite design can be distinguished. Slight variations occur among those listed as similar, but not so pronounced as to warrant a separate classification. Most of them show signs of a reddish wash having been applied, though it is seldom more than a trace; the colour of the body varies from dark brown to red.

In form they all, with only one exception, correspond roughly to the same type, i.e. a

ROMAN TOMB, 'AMMAN

circular body with short, rounded nozzle and unpierced vertical handle with two grooves. The exception, no. 115, has a voluted nozzle. One example, no. 83, is slightly more heart-shaped than round. There are five large lamps, including no. 197 (Pl. XXV), which in form are the same as the small ones. Five varieties of base are found: a plain flat disk; a disk with a raised ring, disks with from two to five raised concentric rings, a flat base with a pear-shaped groove; and another with a kind of strapping design which passes up to the nozzle. The last two varieties are the rarest, there being only three examples of them. Except for these two and nos. 83 and 115, all have a heavy rib from the handle to the flat base, where it sometimes terminates in a knob. No. 83 has an extra large basal bulge to the nozzle, and the base of 115 is a disk with an eight-petalled daisy design in the centre. No drawings of lamps have been attempted, but the photographs of a selection on Plate XXV give an adequate picture of the group.

No.	Plate	Description	Locus	Body	Firing	Slip or wash	Other examples	Remarks
1	—	Lamp	Main Hall =MH		See text, p. 84.		—	—
2	XXV	"	MH, AA, AC, AE AG		" "		33	Condition too bad for individual classification.
3	"	"	MH		" "		6	Cf. QDAP, Vol. XI, Pl. IX, 133.
4	"	"	MH, AC		" "		5	Ibid., 139.
5	"	Jug, trefoil mouth, strainer in neck, handle at side	MH	Pink	Hard	Brown	3	
6	XXVI	Jug, one handle	MH	Brown	Medium	Brown	—	Fine grits.
7	"	Flask, one handle	MH, AC, AG	Black core, brownish surface	Hard	"	27	Some pink varieties, mostly hard fired; some without ribbing.
9	"	Cooking pot	MH	Brown	"	"	9	(Slight variations in proportion and colour.
12	"	" "	MH	"	"	"	8	
13	"	Tall jug	MH	"	Medium	{ Pinkish-brown	—	
17	"	Jug, one handle	MH	"	"		1	
18	XXV	Flask, no handle	MH	"	"	Brown	—	
22	XXVI	Flask, one handle, knob base	MH	"	"	Buff	—	
25	XXV	Lamp	MH		See text, p. 84.		6	
28	"	"	MH, AA		" "		3	Cf. QDAP, Vol. XI, Pl. VIII, 158.
29	Fig. 3	Water jar, ring base	MH	Brown	Medium	Brown	—	Neck and handles missing.
31	XXV	Lamp	MH		See text, p. 84.		8	
32	—	"	MH		" "		1	
34	Fig. 4	Bowl	MH	Pink	Soft	Traces brown	—	
35	XXV	Lamp	MH		See text, p. 84.		6	Cf. QDAP, Vol. XI, Pl. IX, 139.
37	XXVI	Miniature flask, one handle	MH, AA, AB, AE	Red	Hard	—	5	Colour varies to buff; some examples contain kohl and bronze kohl sticks.
39	XXV	Bowl on stand	MH	Buff	"	Brown out, pinkish in	—	Scalloped edge crudely cut with a knife.

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No.	Plate	Description	Locus	Body	Firing	Slip or wash	Other examples	Remarks
41	XXVI	Water jar, two handles	MH	Brown	"	Brown	2	
45	—	Lamp	MH		See text, p. 84.		—	
50	XXV	Bowl, two strip handles	MH	Buff	Medium	Brown out, buff in	1	
51	"	Lamp	MH, AD		See text, p. 84.		2	
52	"	"	MH		" "		—	
54	"	"	MH		" "		3	
57	"	"	MH		" "		1	
59	"	"	MH		" "		—	
65	"	"	MH, AB, AF, AG		" "		11	
69	"	"	MH		" "		—	
77	"	"	MH, AB		" "		2	
83	"	"	MH		" "		—	
86	XXVI	Flask, one handle	MH, AE, AG	Buff	Medium	Red	3	Colour varies to buff; one example contains kohl.
98	"	Flask, two handles	MH	Brown	Medium	Red-brown		
100	Fig. 4	Bowl	MH	Pink	"			
101	XXVI	Round-bottomed pot, no handles	MH	Red	Hard	Brown		
105	"	Cooking-pot	MH	Grey	"	"	1	
112	XXV	Lamp	MH		See text, p. 84.			
115	—	"	MH		" "			
118	XXV	"	MH		" "			
120	"	"	MH		" "			
124	Fig. 4	Flask, one handle	MH	Buff	Medium	Brown		Incomplete.
132	XXV, Fig. 4	Dipper flask	MH	Buff	Hard	Dark brown		
136	"	Lamp	MH		See text, p. 84.			
139	"	"	MH		" "			
145	XXVI	Small cooking pot	AB	Pink	Soft	Pink		
147	XXV	Flask, no handle	AB	Buff	Medium	Brown		Cf. QDAP, Vol. XII, Pl. XX, 6 a and b, from which it seems to be derived.
149	"	Small spouted pot	AB	Buff-pink	"	—		
150	XXVI	Small flask, one handle	AB	Buff	Hard	—		
152	—	Lamp	AF		See text, p. 84.			
155	XXV	"	AF		" "			
162	XXVI	Tall flask, one handle	AC	Red-buff	Hard	Brown	1	
163	"	Miniature pot with lid	AC	Brown	Soft	—	—	
166	XXV	Lamp	AD		See text, p. 84.		—	
167	"	"	AE		" "		—	
176	—	"	AG		" "		—	
187	XXV	"	MH		" "		—	
189	—	"	MH		" "		—	
196	XXV	"	MH		" "		—	
197	"	"	MH		" "		—	
198	—	"	MH		" "		—	
200	XXVI	Flask, one handle	MH	Black in, red out	Hard	—	—	
201	Fig. 4	Bowl, rim fragment	MH	Reddish	Hard	Red	—	Sherd only.

Gold. Except for two plaques and one very poor bead, ear-rings are the only objects in this metal; the electrum ring and tassel are of a very poor quality alloy, and I have called them electrum in the absence of any analysis. It is surprising to find so much gold (34 ear-rings and 2 plaques) in a robbed tomb; a few of the ear-rings are broken and incomplete, which confirms the robbing. The objects are all of the usual types for the period, and many parallels could be quoted (Pl. XXVII).¹

212. Electrum (?) ring, on the bezel a cross on a circle.
213. Ear-ring, sheet gold on paste (?) core, small wire suspension piece.†
214. Pair of gold ear-rings; each ear-ring is made up of a small hemisphere of gold; the fastening consists of a piece of gold wire one end of which was twisted into a loop and then hammered flat for about 15 mm. of its length. This loop was soldered to one edge of the hemisphere, slightly projecting, and the end of the flattened part to the opposite edge. The rest of the wire was curved round, the end being passed through the loop and twisted to close it.
215. Pair of gold ear-rings, originally containing a piece of coloured glass in a rope pattern frame; the two hanging wires probably had a glass or paste bead on them. The fastening is again a piece of looped gold wire but without any flattening.
216. Pair of gold ear-rings of thin sheet gold over a paste or other soft core, circular in section; the ends of the gold sheet are drawn out to make the wire fastener.
217. Single ear-ring as 216 but triangular in section.†
218. Single gold ear-ring as 214 but with much heavier wire fastener, not flattened, the two ends being lapped round each other in the bracelet technique (see under 'Bronze', p. 88).
219. Single gold ear-ring as 214 but with two hanging wires for beads.
220. Ear-ring consisting of a piece of dark-blue glass in a plain gold mount, usual wire fastener. The glass is the actual piece as found in the mount, but is surprisingly small, and perhaps had a layer of soft coloured paste round it which has disintegrated; no evidence for such paste was observed.
221. Ear-ring of plain gold wire, looped at one end with the other twisted through it.
222. Gold ear-ring with mount for a piece of coloured glass which was held in position by a thin strand of gold wire on either side of the mount.
223. Ear-ring of thin gold wire, with a suspension piece for a glass bead; the top of this piece is made in the form of an open trefoil with a globule of gold in the centre.
224. Pair of gold ear-rings, resembling 216.
225. Gold ear-ring as 216, but with one end of the wire left protruding and the end twisted into a knob; possibly for holding a glass bead.†
226. Eye-shaped plaque of sheet gold; there are pierced holes at both ends and in the centre of one side. In the middle is a raised mount for a piece of coloured glass or paste. The edges at the back have been lapped over a piece of bronze, some of which still remains; there is also a trace of some adhesive material between the gold and the bronze.
227. Smaller example of 226, but with two holes only at the ends. No trace of bronze on the back.
228. Pair of gold ear-rings, resembling 216.
229. Three gold ear-rings, two of them broken and incomplete; as 217.†
230. Gold ear-ring, of thick gold wire, with four globules of gold arranged pyramidally on the outer edge.
231. Gold ear-ring similar to 222, but with a horizontal panel below the mount, from which originally hung two wires with glass beads.
232. Pair of ear-rings, as 216.†

¹ Items marked † are not illustrated.

- 233. Ditto, but with the wire ends wrapped round each other.†
- 234. Pair of ear-rings, as 216.†
- 235. Pair of ear-rings, as 225.
- 236. Single ear-ring, as 215, but with the piece of (now colourless) glass or paste still held in position by a piece of gold wire projecting from either side of the frame.
- 237. Single ear-ring, similar to 220, but much damaged.
- 238. Tassel-like object of electrum, with a loop for suspension.†

Silver. This is much scarcer than gold, and calls for no special comments other than the remarks dealing with each object. (Pl. XXVII).¹

- 239. Small silver ring, plain bezel.†
- 240. Fragments of a button case (?) of thin sheet metal, much damaged.†
- 241. Rod of thin silver wire, in two pieces.†
- 242. Pair of small bracelets, silver with bronze (?) alloy; the patina is green, but, on cleaning, the metal proves to be silver, though no analysis has been possible. Child's size.†
- 243. Small bracelet similar to 242, but with no bronze alloy.†
- 244. Small amulet case, octagonal section, two loops for suspension on top and two globules of silver below. The filling is a white paste-like material.
- 245. Fragment of a small, thin wire bracelet.†
- 246. Fragments of a thin wire bracelet.†
- 247. Bases of two small buttons, made of a thin flat disk of metal with a hole punched in the centre and the ends of a loop of flat wire passed through and turned over to either side. Very poor silver with some bronze alloy.
- 248. Ring of thin silver wire.
- 249. Ring of thin, flat silver.†
- 250. Fragment of a small ring of silver wire.†
- 251. Large, heavy, silver ring with inscribed carnelian bezel; this was kept in place by some adhesive material and by a slight turning over of the rim, struck by a sharp chisel all round at a short distance from the edge. The carnelian bezel was badly cracked and flaked, possibly by fire; two large pieces were still in position when found, but dropped out as the whole thing dried. The remainder must also have been in position as there was no trace of soil in the mount; they fell out presumably in the removal of the soil and were only recovered by most careful sieving and washing of the surrounding earth. Some of the pieces were little more than microscopic in size. (See note by J. H. Iliffe, p. 96, and Pl. XXXII, 2.)
- 252. Fragment of a silver ring with a carnelian engraved bezel in a hollow mount; the bezel in this case is complete (Pl. XXXI).

Bronze is still the most popular metal, and is used extensively for personal ornaments, though there are no bronze ear-rings. There are many fragments of gilded bronze, probably from dress- or head-ornaments; some of these have small holes, as though for attachment with a thread rather than a nail, but the metal is only of leaf thickness and so corroded that very little sense can be made of them. The bracelets are mainly in three techniques: (*a*) solid, with varying sections; (*b*) made of narrow, thin sheets of metal, lapped over to form a tube and then curved to shape; (*c*) in the twisted wire technique, in which a core of bronze or iron wire is surrounded by some hard material, unidentified and now white, and wound round with strands of bronze wire. Sometimes a strand of

¹ Items marked † are not illustrated.

iron wire is included, with four, three, or two strands of bronze to one of iron; or sometimes the iron strand is merely twisted round over the bronze. Various methods of finishing off the fastening are employed.

The bells are interesting as providing another link between customs of the past and the present. Among the fellahin to-day young children have bells hung round their necks for frightening off the evil spirits, or, as some say, for scaring snakes. There is no doubt that the bells from this tomb belonged to child burials, of which there were many remains, and that they were intended to serve the same function; it appears they failed in their duty. The amulet cases are another link, being of the same general form as those used to-day (Pl. XXVIII).¹

253. Spatula, the round end slightly thickened to serve as a kohl stick.†
254. Fragment of twisted wire bracelet.†
255. Bracelet of twisted bronze and iron wire.
256. Bronze bell of hemispherical form; clapper and suspension ring missing.†
257. Fragments of twisted bronze wire of various gauges, representing broken bracelets.†
258. Turned boss or finial, from the lid of a box (?).
259. Fragments of three bronze ointment spoons or spatulae, one made of twisted rectangular-section rod, the others with turned ornamentations.
260. Three twisted bronze and iron wire bracelets, proportions of 4, 3, and 2 bronze to 1 iron; very corroded.
261. Fragments of two bracelets in the lapped technique, (*b*) above.†
262. Fragments of two ointment spoons.†
263. Thin bronze wire ring.
264. Twisted bronze and iron wire bracelet, 2 to 1, no central core visible.†
265. Bracelet of D-shaped section, metal in very good condition.
266. Small hemispherical bell with two bands of engraved horizontal lines; clapper missing. Part of an iron ring corroded to the suspension wire.
267. Small flared mouth bell, iron clapper.
268. Small bronze ring, the bezel engraved with the figure of a lion or bull; found with iron ring, no. 323, on a finger bone.
269. Fragments of two ointment spoons.
270. Bag or belt fastener, consisting of a tongue of metal with a rectangular hole at one end, passing through a small ring: as found.
271. Bracelet in the lapped technique; the line of lapping can be clearly seen. The ends, drawn out into wire, were wrapped over each other so that the bracelet could be expanded or contracted.†
272. Fragments of twisted wire bracelets.†
273. Fragments of twisted bronze and iron wire bracelet; in this case the iron is merely twisted over the bronze.†
274. Twisted bronze and iron wire bracelet; 4 to 1.
275. Small hemispherical bell, clapper and suspension ring missing.†
276. Fragment of small chain of circular bronze wire links.†
277. Thin wire ring.
278. Twisted bronze and iron wire bracelet, 2 to 1; traces of coarsely woven cloth still adhering to the iron.†
279. Large hemispherical bell, iron clapper and suspension ring.

1 Items marked † are not illustrated.

- 280. Fragment of small conical-shaped bell.†
- 281. Ointment spoon.
- 282. Fragments of ointment spoon.†
- 283. Neck band or torque in the lapped technique; the line of join is clearly visible. The fastening is a hook and loop of wire; an unidentifiable object of bronze was suspended on the torque.
- 284. Solid square section wire bracelet, the ends wrapped over each other for expanding or contracting.†
- 285. Twisted bronze wire bracelet.†
- 286. Small ditto.†
- 287. As 285.†
- 288. Small bronze ring; the bezel engraved with a circle and the edges roughly scalloped.
- 289. Short section of lapped sheet metal, closed at one end.
- 290. Fragments of a bronze mirror (?).†
- 291. Small fragments of very thin gilded bronze, much corroded.†
- 292. Fragments of twisted wire bracelets.†
- 293-5. Three bracelets of thick gauge bronze and iron wire, 2 to 1.
- 296. Fragments of two small twisted wire bracelets, child's size.
- 297. Thin wire bracelet, child's size.†
- 298. Bracelet in the lapped technique, wrapped ends.†
- 299. Fragments of another.†
- 300. Finger-ring, the bezel engraved with a horizontal line along the middle and a vertical line at each end; unidentifiable, slightly fish-like objects engraved on either side of the central line.
- 301. Bracelet fragments.†
- 302-3. Two twisted iron and bronze wire bracelets, 2 to 1.†
- 304. Small flat section bracelet, perhaps poor quality silver.†
- 305. Fragments of two ointment spoons.†
- 306. Heavy conical-shaped bell, two horizontal lines round the middle; iron clapper.†
- 307-8. Two hemispherical bells, iron clappers; clapper and suspension ring missing on one.†
- 309. Very small hemispherical bell, clapper missing.†
- 310. Cylindrical amulet case, two suspension rings.
- 311. Spherical head of a hairpin (?); thin metal over a wood core.
- 312. Finger- (?) ring, flat section, raised square bezel; this has been pierced and there are remains of some other metal (silver?) to be seen in the hole.
- 313. Fragments of twisted wire bracelets.†

Iron is all very badly corroded, and too frail to be cleaned. The presence of twenty-six large nails in *AG* suggests a wooden coffin, but no other objects call for particular comment (Pl. XXVIII).¹

- 314. Fragments of bracelet.†
- 315. Key with ring handle.
- 316. Fragments of bracelets.†
- 317. Thick wire bracelet, round section, traces of cloth adhering to the metal. Stuck by corrosion to 255.
- 318. Iron ring, flat oval bezel.
- 319. Large-headed nail.†
- 320. Fragments of bracelets.†
- 321. Fragments of finger-ring.†

¹ Items marked † are not illustrated.

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- 322. Finger-ring, incomplete, stuck to bell, no. 266.
- 323. Finger-ring, found on finger bone together with 268.
- 324. Finger-ring.†
- 325. Fragments of bracelets, impression of cloth on some.†
- 326. Fragments of two small bracelets.†
- 327. Fragments of a knife or arrow-head (?).†
- 328. Key with ring handle.†
- 329-31. Three small bracelets, child's size, two incomplete.†
- 332. Fragments of bracelets.†
- 333. Fragments of two rings.†
- 334. Fragments of bracelets.†
- 335. Twenty-six large-headed nails, length varying from 0.03 to 0.065 m.
- 336. Fragments of a knife.†
- 337. Short points (? nails that have lost their heads).†
- 338. Bracelet fragments.†

Glass. The black bracelets and rings are the same as those in use in Palestine until quite recently, and were probably manufactured there. The diamond- or lozenge-shaped ornaments mounted in gilt bronze are of some interest (Pl. XXIX).¹

- 339. Vase with squat body, flared mouth; two handles.
- 340. Tall narrow-necked vase, with eight vertical grooves round the body.
- 341-4. Four tear bottles.
- 345. Pair of black, opaque glass bracelets, crude rope pattern, child's size.
- 346. Small plain black glass bracelet, child's size, D-shaped section.
- 347. Pair of plain black glass bracelets, medium size, D-shaped section.
- 348. Large plain black bracelet, D-shaped section.†
- 349. Clear glass rod; rounded point at one end, broken off at the other.
- 350. Black opaque glass finger-ring, raised circular bezel.
- 351. Flat flask, cylindrical neck.
- 352. Globular vase, flat bottom, cylindrical neck, flared rim.
- 353. Squat globular vase, flat bottom.
- 354. Bag-shaped vase, flat bottom, shallow depression in each of the four sides, neck and rim missing.
- 355-7. Three tear bottles.
- 358. Bead in the form of a two-handled vase (one handle missing) with ribbed body; pierced vertically.
- 359. Heavy bracelet of black glass, brownish patina.
- 360. Black glass bracelet, D-shaped section, as 348.†
- 361. Black finger-ring, oval bezel.
- 362. Ditto.
- 363. Squat globular vase, flared rim, incomplete.
- 364-6. Three tear bottles.
- 367. Pair of black bracelets, D-shaped section, as 348.†
- 368. Tear bottle, very long narrow neck.
- 369. Bag-shaped vase, flat bottom, flared rim.
- 370. Small flat flask, cylindrical neck.
- 371. Globular vase, flat bottom, very thick, heavy neck and rim, small opening, two crude handles.

¹ Items marked † are not illustrated.

- 372-3. Two tear bottles.
 374. Small heavy black bracelet, D-shaped section, child's size.
 375. Black bracelet, medium size.†
 376. Globular vase, flat bottom, cylindrical neck.
 377. Squat globular vase, flat bottom, wide neck, flared rim.
 377 *a*. Fragment of miniature vase, cylindrical neck.
 378-9. Two tear bottles.
 380. Cylindrical neck with flared rim; but the neck is closed at the end, and gives the impression of being intended as a complete piece, perhaps a kohl pot.
 381. Fragments of an opaque, pale greenish glass object.
 382. Small black finger-ring, circular bezel.†
 383. Black finger-ring, spiralled bezel.
 384. Black finger-ring, oval bezel.†
 385. Miniature vase, drop-shaped body, trefoil rim, bottom very rough and sharp, as though broken off something else.†
 386. Squat globular vase, flared rim; fragmentary.†
 387-8. Two tear bottles.
 389. Six diamond- or lozenge-shaped pieces of thin, clear glass, each in a mount of gilded bronze; the mount extends downwards to form four flaps, each of which is pierced with a small hole as though for attachment by means of thread. The metal, both gold and bronze, is extremely thin and friable.

Beads (Pl. XXX).¹

390. Black glass, barrel shape.†
 391. Coloured glass, blue and white paste, with jet pendant, no. 410, in centre.
 392. Blue and white paste, black glass, carnelian.
 393. Blue glass spacers, as 401.†
 394. Black glass, melon shape.†
 395-6. Millefiore, of black, yellow, and red glass.
 397-8. Black glass, blue paste, with brown sard amulet, no. 438, on left.
 399. Blue glass spacer, as 401.†
 400. Black and coloured glass, blue paste, sard, crystal, jet.
 401. Pale-blue glass spacers, black and yellow glass, bone, stone pendant.
 402. Jet.
 403. As 406.†
 404. Shell, coloured glass, jet, sard, carnelian.
 405. Sheet gold, bicone shape.†
 406. Black glass.
 407. Clear dark-blue glass on left, opaque green on right.

Jet. This term I have retained temporarily for the very light (in weight) black material of which there is a considerable quantity in this tomb (see note by J. H. Iliffe, above, pp. 95-6). The bracelets are of two kinds, one solid, the other made up from semicircular wedge-shaped segments, strung together by two holes pierced near the thin edge. The outer edge has triangular notches cut on alternate sides leaving a crest in the form of an angular wavy line, which is further emphasized by a narrow groove carved down the centre. The line is finished off horizontally, left and right on alternate segments, and a number of these found adhering together in *AE* make it clear that they were so com-

¹ Items marked † are not illustrated.

bined as to produce a general diamond-shaped effect. Some of these bracelets are so worn that nothing of the central line and only a trace of the diamond pattern can be distinguished; others, however, are still almost as new. The solid bracelets are a dirty greyish colour rather than black, but the material seems to be the same; the lines of cleavage are too rough and uneven for ivory or bone. (Pl. XXXI).¹

- 408. Segmented bracelet, showing a moderate amount of wear.†
- 409. Ditto, in almost new condition, and still retaining a high degree of polish.
- 410. Pendant, rather of the thistle bud type (with beads, Pl. XXX, 391).
- 411. Inscribed finger-ring (see note by J. H. Iliffe, p. 95, no. 1).†
- 412. A number of segments sufficient to make two bracelets, very much worn down.†
- 413-14. Two solid bracelets, large and heavy, of D-shaped section, much damaged and incomplete.
- 415. Kidney-shaped pendant, inscribed (see below, p. 96, no. 3, and Pl. XXXII, 1).
- 416. Six-sided cylindrical bead, inscribed (see below, p. 96, no. 4, and Pl. XXXII, 3).
- 417. As 416, but slightly smaller, and inscribed: ΥΓΙΑ, possibly acc. sing. m. f. or neut. pl. of υγιής, 'healthy'.
- 418. Six-sided bead, as 416, but uninscribed.†
- 419. Two pendants (one incomplete), as 415, uninscribed.†
- 420. Pendant, rather resembling a double-edged tooth comb; the explanation of many of these amulets escapes me at the moment.
- 421-2. Two segmented bracelets, one showing a moderate amount of wear, the other very worn down; the former was found with the segments adhering together and shows the correct method of stringing.
- 423. Fragment of an inscribed ring (see note by J. H. Iliffe, p. 95, no. 2).†
- 424. Part of a segmented bracelet, very worn.†
- 425. Pendant: the object represented cannot be identified.
- 426. Small solid bracelet, incomplete, D-shaped section.†
- 427-8. Two small busts, with markedly Negroid features, the hair indicated by cross-cuts which give the effect of curls. On the smaller specimen (427) the hair (or head-dress) is conical in shape; the chest is shown to just below the breasts, and short stumps of arms; this specimen has crude indications of breasts, and may be intended for a woman. The chest of the other is quite flat. The suspension hole in 428 goes from the centre of the head to the centre of the back of the neck, and in 427 from the back to the front through the conical head-dress or hair. Some bronze wire still remains in both the holes.

Varia (Pl. XXXI).¹

- 429. Small composite ring of bronze, iron, and shell; or perhaps they are only stuck together by accident of corrosion.†
- 430. Cowry, the back rubbed down.†
- 431. Small mask of dark-brown paste, pierced for suspension from just above the forehead to the centre of the back.
- 432. Two fragments of a bone pin, turned knob head and ornamentation, hole for the centring on top of the knob.
- 433. Small amber pendant or amulet of an unidentifiable object.†
- 434. Remains of five buttons or dress ornaments, consisting of a Medusa (?) face of white paste or glass set in a round disk of darker glass, the whole in a circular gilt bronze mount with four projecting flaps each pierced with a small hole for attachment. The glass or paste is in a very bad condition, and in some cases started to disintegrate as soon as it began to dry.
- 435. Bone needle, oval section, flat at the eye; fragments of another or of a hairpin.

¹ Items marked † are not illustrated.

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436. Fragment of a glass and bronze button (?); very damaged.†¹
 437. Amber finger-ring, plain bezel.
 438. Dark-brown paste amulet (scaraboid), pierced horizontally for suspension. (Pl. XXX, with 397-8, cf. p. 92).
 439. Amber pendant or amulet of an unidentifiable object.
 440-1. Two bone needles, and fragments of another.
 442. Tiny fragment of very coarse, loosely woven material.†
 443. Lumps of colour, probably red ochre.†
 444. Amber pendant in the form of a metal or stone vase; volutes indicated on the body, two large curved handles, and a knob base. The suspension hole passed through the cover (?) of the vase.
 445. Amber pendant or amulet of an unidentifiable object, perhaps an animal's head.
 446. Amber pendant as 445.

Coins (Report by Sir Alec Kirkbride).

- 447-8. Two bronze coins, unidentifiable, probably Roman provincial.
 449. Bronze coin, entirely defaced.
 450. Bronze coin pierced for use as ornament, and probably introduced into the tomb in that capacity. The legend is not legible but it appears to be provincial, struck by Marcus Aurelius, possibly at Gaza, but that is not certain.
 451. Six silvered bronze coins of Aurelian (A.D. 270-5).
 452. Three silvered bronze coins of Gallienus (A.D. 253-66).
 452 a. Two silvered bronze coins similar to 451 and 452, but the emperor's name illegible.
 453. Bronze coin pierced for use as an ornament, struck by Caracalla, probably at Tyre (A.D. 212-17).
 454. Bronze coin, unidentifiable, probably provincial.
 455. Bronze coin of Herod Agrippa I (A.D. 42-3).
 456. Bronze coin of Syrian origin; the emperor's face and name are too obliterated to be identifiable.

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Table Showing Distribution of Types of Objects

Grave or Room	Gold	Silver	Bronze	Iron	Glass	Beads	Jet	Pottery	Various	Coins
A	...	239	...	...	339-40	...	...	...	...	447-8
B	212	...	...	...	341	...	...	...	...	...
C-E	...	...	...	...	...	...	...	...	...	...
F	...	...	253	...	369	...	...	...	...	...
G	213	...	254	315	342	390	408	...	...	...
AA	214-20	240-2	255-9	316-19	343-4	391	409-11	141-4	429-31	449
AB	221-3	243	260-4	320-1	345-58	392-3	412-18	145-50	432-3	...
AC	224-7	244-6	265-73	322-5	359-66	394-6	...	157-63	434	...
AD	...	...	274-7	326-7	367-9	397-9, 402	419-20	164-6	435-8	450-2 A
AE	228-31	...	278-95	328-32	370-5	400-1	421-3	167-71	439-42	453-4
AF	232-3	247	296-301	333-4	376-80	403	424-5	151-6	443-5	455-6
AG	234-8	248-52	302-13	314, 335-8	381-9	404-7	426-8	172-7	446	...
Hall	...	...	...	...	...	...	...	1-140, 178-210	...	...

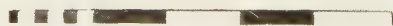
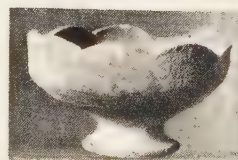
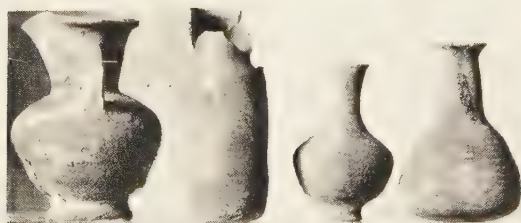
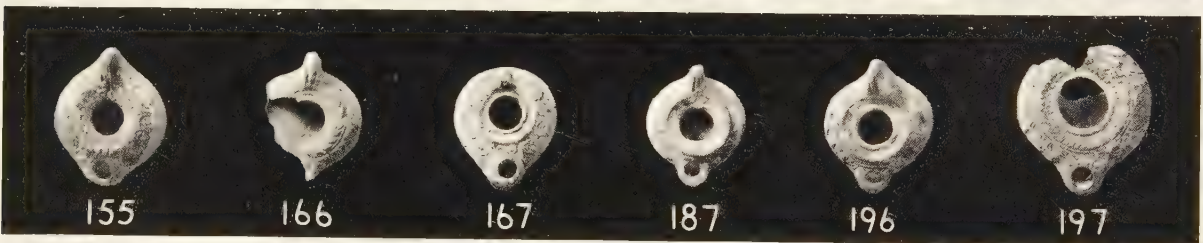
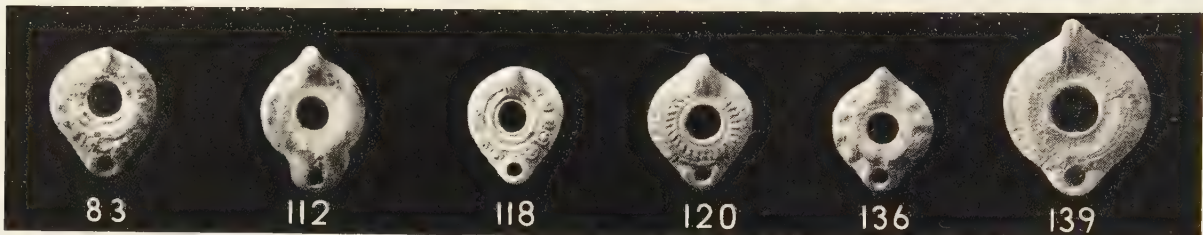
¹ Items marked † are not illustrated.



1. Entrance to tomb



2. Inside of tomb looking east
ROMAN TOMB, 'AMMAN



ROMAN TOMB, 'AMMAN: POTTERY

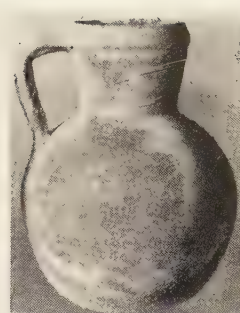


9



22

200



6



105

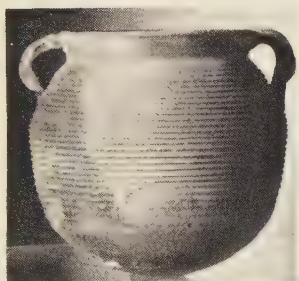


37

86

150

7



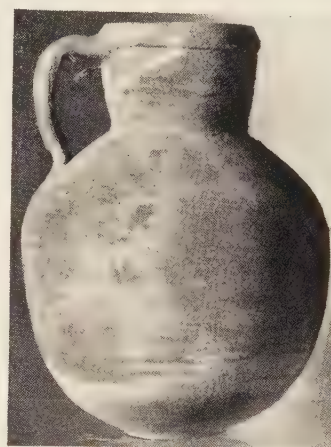
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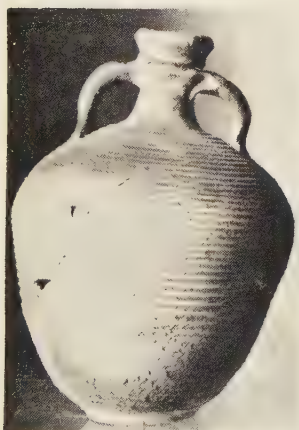
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145

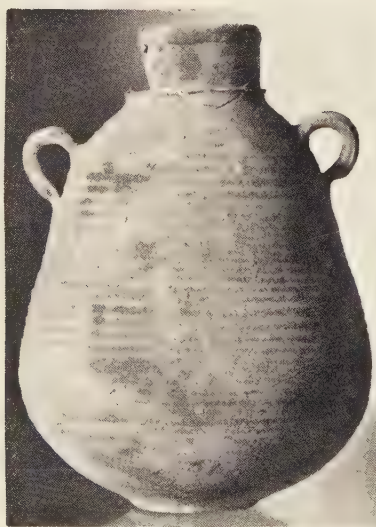
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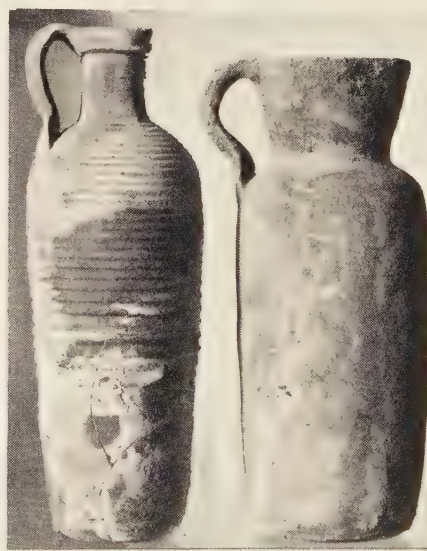
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98

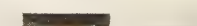


41



162

13

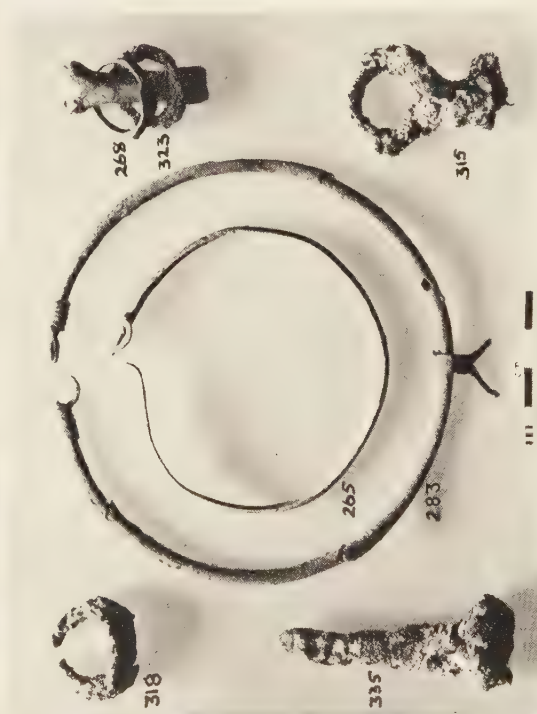
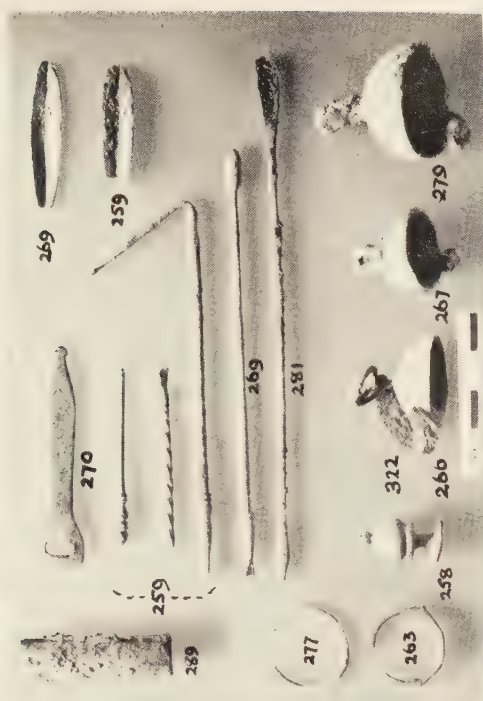


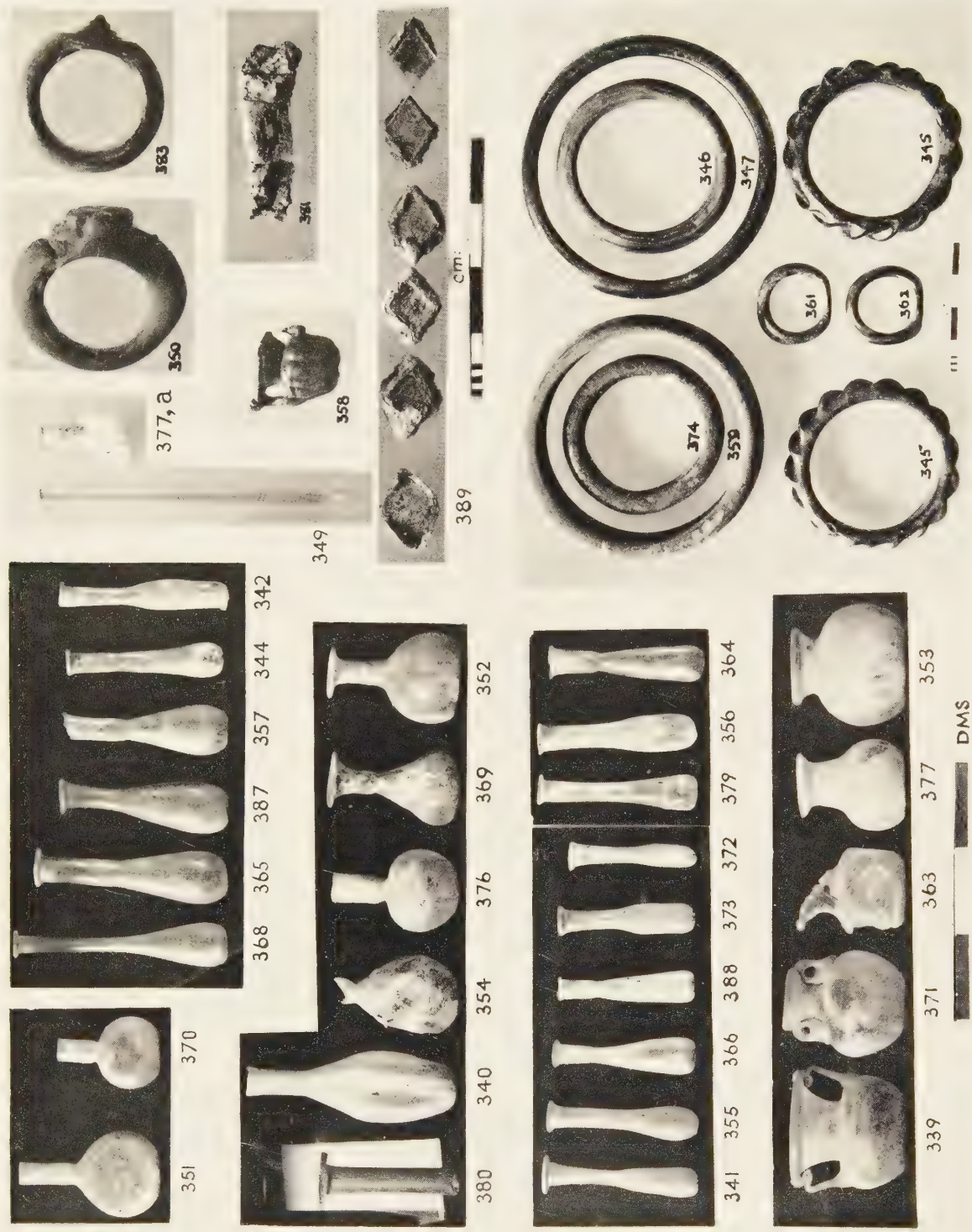
ROMAN TOMB, 'AMMAN: POTTERY



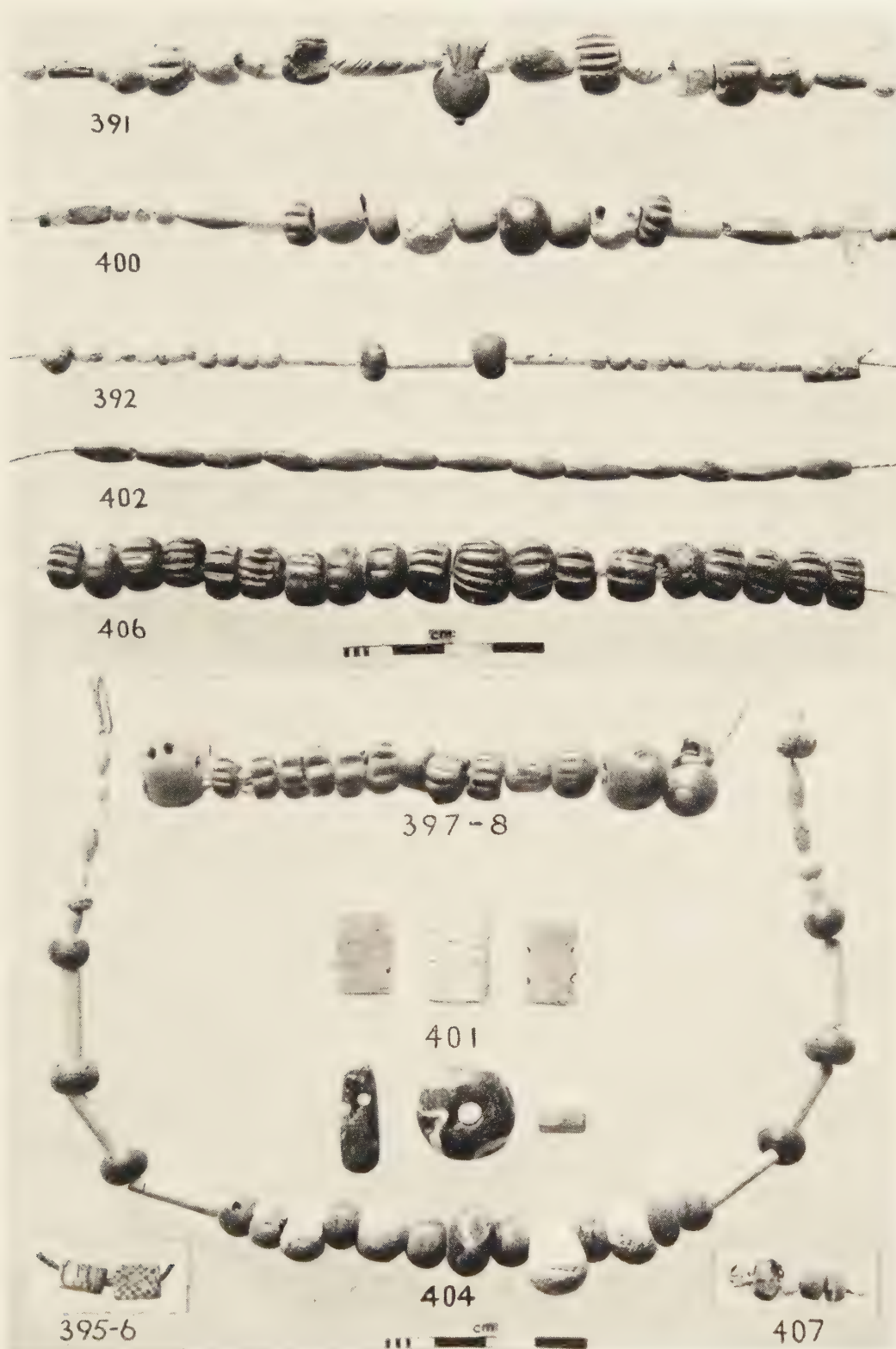
ROMAN TOMB, 'AMMAN: GOLD, ELECTRUM, AND SILVER OBJECTS

ROMAN TOMB, 'AMMAN: BRONZE AND IRON OBJECTS





ROMAN TOMB, 'AMMAN: GLASS OBJECTS



ROMAN TOMB, 'AMMAN: BEADS



ROMAN TOMB, 'AMMAN: OBJECTS IN VARIOUS MATERIALS
(Nos. 252 and 417 enlarged scales)

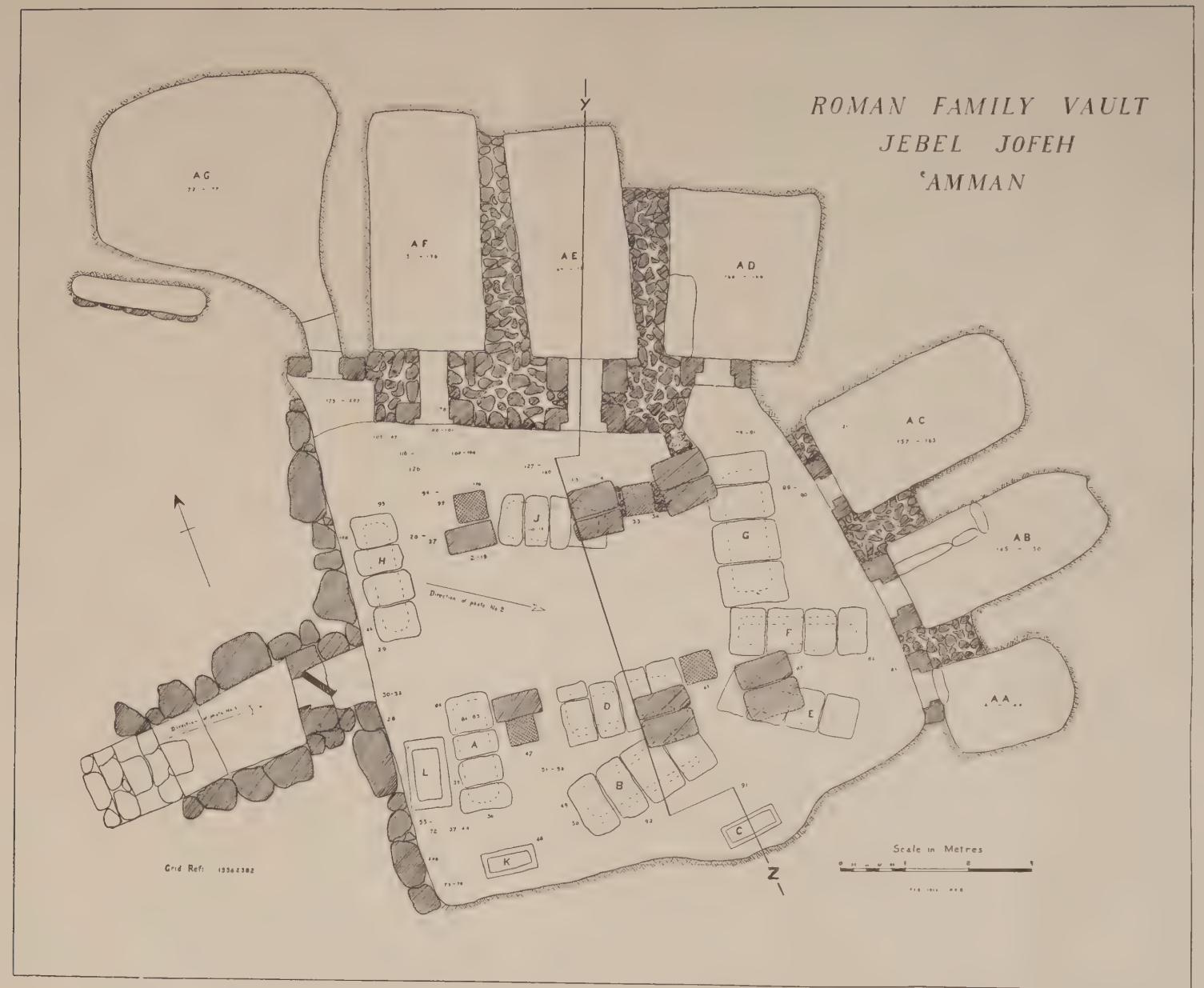


FIG. 1

NOTE ON OBJECTS OF PSEUDO-JET AND A GNOTIC GEM FROM ROMAN TOMB AT 'AMMAN

ORNAMENTS made of jet and inferior substances of the same family occur frequently from the Iron Age onwards in western Europe, e.g. Great Britain, Germany, France, and Spain.¹ Although true jet is a hard substance resembling stone, capable of being polished, and breaking with a conchoidal fracture, while certain substances also known as jet are fibrous and comparatively soft, with a grain resembling wood, all seem to have had a similar origin as wood which has been immersed in water and subjected to decay and other processes for longer or shorter periods. True jet has become completely silicified while inferior forms have been less completely transformed, and retain much of their original wood (?) structure. These should more properly be called 'pseudo-jet', 'lignite', or by some similar name, to distinguish them from the true substance. A well-known example of the pseudo-jet family is the Kimmeridge Shale of Dorset, from which was made the 'coal-money', frequently found in deposits of the Late Celtic and Roman periods in Britain.²

The occurrence of this jet or its relatives does not appear hitherto to have been reported from Palestine. Ornaments of pseudo-jet or lignite have, however, recently come to light, first in a group of tombs of third to fifth century A.D. date at Karm esh Sheikh, near Herod's Gate, Jerusalem,³ and lately in considerable quantity, in a tomb on Jebel Jofeh at 'Amman (see above, pp. 81 ff., especially pp. 92-3). Their occurrence here is further evidence of intercourse with the West, previously exemplified by the finding in Palestine of, for example, sigillata ware bearing Italian and Gaulish potters' names, and fibulae manufactured in northern Italy.⁴ In the present instance, it would seem possible that the pseudo-jet ornaments were brought to Palestine by their owners, perhaps some Roman soldiers from Italy or Gaul.

The following inscribed objects of pseudo-jet, i.e. all of the soft fibrous variety, occur in this tomb:

1. Finger-ring; 0.024 × 0.018 m. Inscr.: ΕΥ|ΔΡΟ|Ω, the middle three letters on the bezel, the first two and last one to l. and r. thereof respectively. This is probably the name of the owner, Eudrous, either in the dative or genitive case. (No. 411 on p. 93; from room AA, see plan, Fig. 1, facing p. 81.)
2. Fragment of finger-ring consisting of part of bezel and adjoining piece to l. Inscr.: ΕΥΤ|Δ...
|Τ..., insufficient to yield any interpretation beyond the common initial greeting, apparently ΕΥΤ[ΥΧΙ]. (No. 423 on p. 93; from room AE.)

¹ Cf. W. Hagen, *Kaiserzeitliche Gagatarbeiten aus dem rheinischen Germanien*, Bonner Jahrbücher, Heft 142 (1937), pp. 77 ff.

² Cf. *ibid.*, p. 102, and reff.

³ In the grounds of the Palestine Archaeological Museum, belonging to the group of tombs published in *QDAP*, Vol. I (1931), pp. 3 ff., Pls. II-XVIII. The objects of pseudo-jet are a necklace (Pl. XII, 2) and a finger-ring, unpublished, inscribed ΙΦΙΛΙC ΑΚΟΛΟΥΘΙ ('Iphilis follows'), Pal. Archaeological Mus. Cat. No. 43.242.

⁴ Cf. *QDAP*, Vol. VI (1938), pp. 19-24, and Figs. 2 and 3.

3. Roughly semicircular pendant of pseudo-jet, with pierced tube above for suspension; 0.020 x 0.022 m. The shape resembles that of the Amazon's shield. In the two 'horns' on either side is an incised circle with central dot. On one side an inscription, faintly incised ΕΥΤΥΧΙ, the usual formula on these pseudo-jet objects. (Pl. XXXII, 1; no. 415 on p. 93, from room AB.)
4. Hexagonal bead. L. 0.027 m. Two non-contiguous faces bear faintly incised cable pattern, and one face the inscription ΕΥΤΥΧΙ. (Pl. XXXII, 3; no. 416 on p. 93, from room AB.)

An Inscribed Gnostic Gem

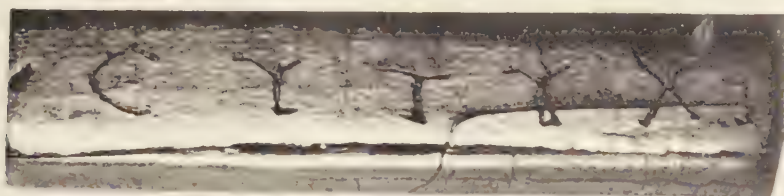
Carnelian seal, oval, inscribed in Greek with Gnostic liturgical invocations. 0.020 x 0.015 m. (Pl. XXXII, 2).

xxxxxxxxxx
 IHIAW....HEVAI i.e. IH IAΩ [I]H EVΩ
 XH.....A.....IX XH.....A.....IX

c. third century A.D.

The stone has been badly fractured making it impossible to ascertain with certainty whether there was another line of text between the two shown above. The crosses are common on these Gnostic amulets. The first line of the text is an invocation: 'Iαω...[I]η Εὐω...; the second has too much missing to afford a satisfactory reading. The letters in the last line have pronounced apices. (No. 251 on p. 88, from room AG.)

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ROMAN TOMB, 'AMMAN (1-3, enlarged)

1. Pendant of pseudo-jet
3. Inscription on bead of pseudo-jet

2. Gnostic gem
4. BYZANTINE GOLD ENKOLPION (obverse)

A BYZANTINE GOLD ENKOLPION FROM PALESTINE (ABOUT SIXTH CENTURY A.D.)

Circular gold enkolpion or pectoral with (double) central disk ornamented in repoussé on either face with scenes of: (a) the Annunciation; (b) the Baptism of Christ. Double loop for suspension. Diameter (of whole): 0.075 m.; (of inner disk): 0.040 m. Weight: 40.78 gm. Byzantine, c. fifth to seventh century A.D. Catalogue No. 46. 218. Pls. XXXII, 4; XXXIII, XXXIV.

THE gold enkolpion or pectoral here published was bought from a Jerusalem dealer in March 1946. No more precise clue to its provenance was available than a vague statement that it had been found 'in the area of the Jordan Valley'. More pertinent to the question of its origin is the fact that, before cleaning, it was partly encrusted with a hard yellow deposit of a sandy nature, which would suggest that it had lain for a long time in some desert spot. The photographs here given were taken after this deposit had been removed.

The medallion consists of a circular disk 0.075 m. in diameter, with two loops at the upper edge for attachment, probably to a torque or neck-ring. In the centre of either face is a smaller circular plate of thin gold, with a scene in repoussé work; these two scenes are surrounded by a plain gold frame. The inner circular plate has a border of a triple ribbing, and the outer frame a double one. This inner plate is really double, having one plate for the obverse, and one for the reverse, enclosing between them a small recess perhaps for a tiny relic or miniature copy of the Gospels, or similar charm.

Similar pectorals are known, dating from about the third to seventh century A.D., frequently having a gold medallion with the portrait of an emperor as centre-piece,¹ or less commonly a double plate as here.² The manner of wearing them, suspended on the breast from a torque or neck-ring, itself often elaborately ornamented with medallions, is shown in the last example.³

In the absence of any distinguishing features, e.g. unfinished treatment of either face, to mark one or the other as obverse and reverse, an arbitrary choice has been made, and that face is here called the obverse which seems slightly the more important and bears an inscription. Thus the subject on the obverse is a scene of the Annunciation. The Virgin Mary is seated at the left on a high-backed chair or throne, in a three-quarter facing position, her face almost full-front, and surrounded by a halo. She wears a robe or mantle with heavy folds and hem; her right hand is raised in an attitude of surprise, while the left is engaged in some action not clear on our pectoral owing to damage at this point. From other sources, e.g. the obverse of the von Gans pectoral,⁴ and some dozen other representations,⁵ we know that the left hand was either grasping the right arm of

¹ Cf. the pectorals in the gold treasure bought in Cairo in 1909 and subsequently disposed among the Freer (Detroit), von Gans (Frankfurt), Antiquarium (Berlin), and Pierpont Morgan (New York) Collections and others, published by Dennison and Morey, *Studies in East Christian and Roman Art* (1918), pp. 97 ff., Pls. I, IV-VIII, X-XIV, XVIII-XXVIII. This is the best parallel for a rare class of object.

² *Ibid.*, pp. 127 ff., Pls. XV-XVII.

³ *Loc. cit.*, Pl. XVII.

⁴ *Loc. cit.*, Pl. XV.

⁵ Listed *ad loc.*, pp. 130 ff.

her chair, evidently in astonishment, or passing a strand of wool into a basket at her feet, in the act of spinning. No trace of the left hand is visible on our pectoral; it could, however, have hung down in the part which has suffered damage, where there is also room for a work-basket, and the scene accordingly be the Virgin spinning, an activity for which we have the authority of the Apocryphal Gospel of St. James, or Proto-Evangel, where her spinning is described in considerable detail. To the left of Mary's head, just above the back of her throne, and also to the left of the throne, on a level with the seat, is a Greek-type cross; both crosses are unconnected with the throne and hang free against the background. The supports of the throne are double bars, beaded along their whole length. At the right appears the angel Gabriel, stepping forward to salute Mary, with raised right hand. He too is heavily robed in a cloak reaching to the feet and, like Mary's, marked by an emphatic hem; he stands with head in full profile, his hair is bound with a head-band, and he also has a halo. The head-band is usual, but in Gabriel's wearing a halo and being represented in complete profile our pectoral differs from most of the other versions of the scene. Gabriel's left hand, at his side, would appear to be holding a staff, but damage at this point prevents certainty. Around, in a clockwise direction, beginning low down to the left of Mary, and continuing above and between the two figures, runs the Greek inscription: ΧΕΡΕΚΕΧΑΡΙΤΩΜΕΝΗ, i.e. χαῖρε, κεχαριτωμένη, (ὁ κύριος μετὰ σου) 'Hail, thou that art highly favoured, the Lord is with thee' (Luke, i. 28).¹ The rounded form of some of the letters fits in with the period to which the pectoral is here assigned. The whole scene is enclosed within a circle of beads.

On the reverse is a representation of the Baptism of Christ. Owing to damage in the lower centre of this side the principal figure, Christ Himself, cannot be well made out: visible are His legs and feet, standing in the river, and the crown of His head, covered with long hair. He is, as often in this scene, represented on a small scale compared with the Baptist and the Angel between whom He stands. Any doubt as to whom this central figure was intended to represent is at once removed by the dove descending directly upon Him. To the left the Baptist stands, in profile, a nimbus around his head, leaning slightly forward in the act of placing his hands upon the head of Christ; at the right stands an angel, seen in three-quarters position from the front and evidently engaged in holding Christ's clothes. The face of the Baptist, upraised and regarding the dove, has moustache, beard, and prominent nose; it is the face of an old man. The head of the angel is covered by his cloak; his hair is done in a row of ringlets above the forehead. This whole Baptism scene should be compared with one of the finest representations of the scene in mosaic in the dome of the Baptistery of the Orthodox at Ravenna, dating from the fifth century.²

The style of our *enkolpion* seems related to that of Syria and Antioch, rather than to that of Alexandria; it reflects the hieratic tradition established in the decoration of the great churches built by Constantine in Jerusalem, and described by Choricus in the churches of Gaza. No trace of Hellenistic or Alexandrian naturalism remains, as, for example, in

¹ Cf. an inscribed gold ring in the British Museum, Dalton, *Catalogue of Finger Rings, Early Christian, etc. in the B.M.*, No. 39.

² Cf. *Altchristliche Mosaiken* with foreword, &c., by Huch and Volbach (Iris Verlag, Bern), Taf. XI.



BYZANTINE GOLD ENKOLPION, OVERSE: THE ANNUNCIATION (detail)



BYZANTINE GOLD ENKOLPION, REVERSE: BAPTISM OF CHRIST (detail)

A BYZANTINE GOLD ENKOLPION

the youthful, bearded, Apollo-like Christ of some of the Roman catacomb representations.¹ Repoussé work in metal of this character is usually found on plaques intended for reliquaries or book-covers. The rarity of such objects as the present enkolpion adds considerably to its interest. It probably formed part of the looted treasure of some monastery, which has eventually found its way on to the market.

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¹ Cf., for example, Cabrol and Leclercq, *Dict. d'arch. chrétienne*, Vol. 2 I, Fig. 1288.

THE SCULPTURE OF LIVING FORMS AT KHIRBAT AL MAFJAR

I HAVE chosen this title to describe some groups of sculptured reliefs in gypsum plaster which were found in the ruins of the Umayyad palace at Khirbat al Mafjar during twelve seasons of excavation ending in the spring of 1948.¹ With the comparable sculptures discovered by M. Daniel Schlumberger at Qaṣr al Ḥair al Gharbi,² on the road to Palmyra, these reliefs add a new and curious chapter to the story of provincial art in Syria and Palestine, the first to be inscribed at the dictation of Islamic rulers.

In writing this account I am content to describe the reliefs with the minimum of comment; for circumstances require it to be written while the reassembly of fragments is still in progress and while, indeed, the dust of the Jordan valley still lies on some of the sculptures. To illustrate the theme I have brought together for reproduction not only representations of human and animal forms, but also fragments of a stucco ceiling carved with a realistic and intricate vine-trellis, which formed the setting for a lively series of human and animal figures. The subject excludes those sculptures, also abundant on the site, which were geometrical in character or confined to conventionalized floral motifs. Some of these were described in Vol. XIII, Nos. 1-2 of this *Quarterly*; others, comprising an important part of the collection, remain for some future publication.

The sculptures to be described originated in three separate contexts. The first of these was the entrance hall of the main residential building, the excavation of which was described in a preliminary report in Vol. VI of the *Quarterly*, pp. 158-9. The second was a domed and sumptuously decorated apsidal room found annexed to the baths, themselves a complex of structures lying some 40 m. north of the palace proper and connected with it by a light arcaded passage. The third context, which yielded a group of nearly life-size human and animal figures, was the gateway to the same baths.

None of the sculptures was found in position, and few had escaped some injury in the collapse of the structures they had adorned. Nevertheless, in the initial tremors of the earthquake which, apparently in a single catastrophe, overthrew both buildings, we may infer that the incrustations of the upper walls and ceilings were the first to fall. In excavation, consequently, the reliefs from those parts were found lying as a rule in confused masses on or near the floors of the compartments they belonged to. In each of these the vaulting was in brick; which falling next protected the fragile plaster from the direct impact of collapsing masonry, and later from the no less destructive permeation of water. To this we attribute the actual survival of so substantial a proportion of the reliefs. Of the plaster which remained attached to the standing walls the upper portions have mostly disappeared; only small sections have been found in two contexts still *in situ* at the base of walls which earthquake and quarriers have spared.

¹ Two of the sculptures here reproduced have already appeared in preliminary reports by Mr. D. C. Baramki, who, as Inspector of Antiquities and, subsequently, Senior Archaeological Officer in the Department of Antiquities, supervised the excavations from the beginning. See *Illustrated London News*, 3 Sept. 1938, and *Quarterly of the Department of Antiquities*, Vol. VI, 1937, Pl. LI, 2.

² See preliminary report in *Syria*, Vol. XX, 1939, pp. 324 f.

As a group the reliefs suggest various attractive speculations. On the technical level it is of interest to note, for the first time in Palestinian or Syrian architecture, the bold and predominant use of stucco as a medium of sculpture. And it is natural to inquire whether this innovation betokens the presence of foreign craftsmen, or whether it can simply be explained as the effect on local industry of that commerce in ideas and trades which was created or encouraged by Umayyad rule and fashion. On this latter assumption some of the subjects treated are particularly instructive; for they show how responsive the local craftsman could be to foreign, and in this case especially Mesopotamian, examples, while still cultivating and developing his own native tradition. In so far as the native style appears to have undergone some change (and it is perhaps summed up by saying that features characteristic of oriental, and alien to Hellenistic, art are more conspicuous in these buildings than in the architecture generally of pre-Islamic Palestine), are we to attribute that change to positive trends in local art, such as might result, for example, from the immigration of foreign master-craftsmen? Or is the mere withdrawal of Byzantine rule sufficient to explain what amounts to a perceptible retreat from Hellenism? Whatever the answer, a further question arises: by what latent vitality had there survived in provincial workshops, through nearly a century of apparent inactivity, the mastery of materials, the profusion, and the originality, of which the architecture and crafts of Umayyad Syria and Palestine are the striking manifestation?¹

One more point of interest arises: it is the fresh glimpse which these sculptures provide of the moral and cultural atmosphere that surrounded the relaxation of a prince of the Umayyad line.² No social or religious inhibition impeded at Kh. Mafjar the frank portrayal in three dimensions of human or animal shapes; no fastidiousness of eye or taste prescribed in their representation an ideal or even a consistent standard of expressiveness or elegance.

The sculptures fall into not less than three groups, distinguished from each other materially by differences of scale and function, and emotionally by differing conceptions inspiring the representation of their subjects.

The first group is chiefly represented in the ceiling decoration of the entrance to the palace. This was a rectangular hall, nearly 12 m. long by 8 m. wide, the roof of which consisted of intersecting barrel-vaults in brick, supported by six wall piers which divided the area into two cross-vaulted bays. The whole area of this roof was thickly encrusted with gypsum plaster, and each of its component surfaces was carved with a design in relief of a scrolling vine-tree laden with grapes, which encircled in its coils the figures of

¹ Astonishment rather than admiration is the sentiment aroused by much that is most spectacular in Umayyad art. As we are dealing in this report with stucco, it may be apposite to quote the following from Herzfeld's *Archaeological History of Iran*, p. 74: 'Gypsum in after days had an immense success in Persian art. It must be the cheapness of it, its lack of character, its yielding to every artistic frivolity, that has made it the favourite material . . . the prevalence of plaster causes the hopeless decadence of architecture.'

² The identity of the patron for whom the palace was built is an open question. It is true that graffiti have been found on the site bearing the name of the Caliph Hishām; and these may be taken as proof of date (see *QDAP*, Vol. VIII, p. 53). But the blatant luxury of the establishment, and the disregard it attests for the stricter rules of Moslem sentiment, accord less with the personal characteristics of Hishām than with those of his dissolute successor and nephew Walid, by whom it is quite possible that the palace was ordered during the lifetime of his uncle.

men, beasts, and birds in diverse postures, plucking the fruit or moving amongst the foliage. The figures in this group suggest on the whole an attempt at realistic and narrative portrayal.

The second group consists of a series of detached human busts. In contrast with the former they are devoid of any narrative quality, but serve as purely ornamental features in an abstract decorative scheme. Such busts occurred both in the palace and in the baths.

The third group comprised a series of independent sculptures, in high relief, of male and female personages, some equestrian figures, and numerous wild or domestic animals, birds and fabulous beasts. These vary considerably in scale and artistic interest. Generally speaking they resemble the busts in their symbolical and impersonal treatment; but amongst the animals, and in particular amongst the horses and riders, there are some which display a sense of living form, and an interest in its portrayal, which tend to relate them in style to the first group. These figures were found both in the entrance hall of the palace and in the gateway of the baths. In each location some stood in niches, others were ranged either singly or in rows along the tops of cornices at different levels. The winged horses (Pl. XLI) and the row of partridges (Pl. XLII) belonged respectively to the pendentives and to the drum of the domed chamber adjoining the baths (see pp. 100, 120). Fragments of four human figures came from the pendentives of the domed entrance to the baths.

Selected examples of each of these groups are given in Plates XXXV–XLV.

Figures in Vine-scrolls (Pls. XXXV–XXXIX)

Excavation of the entrance hall of the palace produced fragments of its ceiling in very considerable quantities; but after more than a year's continuous sorting of innumerable small pieces, a jig-saw puzzle of gigantic proportions, we were compelled to abandon the hope of reassembling any piece large enough to give even a provisional reconstruction of the vine-scrolls which formed the framework of the design. The remains showed that the ceiling was divided into compartments by border patterns, which followed the lines of the groins on the one hand (Pl. XXXVIII, 1) and the junctions of the vaulting with the walls on the other. The decoration therefore comprised seven separate fields. How the surviving fragments were distributed amongst these it is impossible to say; but it is clear that the decoration of all alike consisted of scrolling vines. Where in each field the foliage started, or how it was developed, can only be conjectured. Fragments of the principal stems, which preserve on the reverse side impressions of the brickwork, mostly cross the lines of the courses diagonally, but with varying angles. Probably the design had a geometrical structure; and many of the coils describe circles between 33 and 43 cm. in diameter. But it is also clear that their development was quite free in detail so that no theoretical reconstruction of the scrolls is possible.

The fragments selected for inclusion in Pl. XXXV can give only a bare indication of the character of the foliage. The main stems are carved to suggest the woody trunks of well-grown vines. The branches are either drawn oval in section or, less realistically, are divided lengthwise by a V-shaped groove. The grapes are represented, by a convention

SCULPTURE OF LIVING FORMS

borrowed from Sasanian sculpture,¹ in pear-shaped clusters divided criss-cross by diagonal lines, each grape being emphasized by a hole drilled in its centre.

The vine-leaves are of two sorts: in one the veins branch naturally from the midribs of each lobe; in the other they form arcs concentric on a little circular indentation between the lobes. This conventionalized and highly decorative leaf is again borrowed from Sasanian sculpture.² Here and there other leafy or flower-like forms occur.

In this complex leafy setting the sculptors set a rich fauna of birds and beasts and men, of which Plates XXXVI–XXXIX give a representative selection.

Like the foliage in which they move, these figures exhibit a mixture of fantasy and realism. Amongst the birds, for example, the representation of species is in many cases apparent; and there is a natural liveliness in the pose and movement of them all which only an observation of nature, or at least of well-drawn models, could have produced. At the same time the plumage and markings are rendered as a pleasing but quite conventional pattern; and, by a curious fancy familiar in Sasanian textiles and stucco,³ the wings are banded or outlined with rows of beads or pearls (Pl. XXXVI, 3, 5, 10, 11, 15).

Amongst the kinds depicted one may distinguish doves or pigeons, partridge, cock, guinea-fowl (?), goose, pheasant, quail (?), and perhaps others. An ornithologist might add to these varieties; but I suspect rather that most individuals combine typical features drawn at random from various familiar birds.⁴

Amongst the beasts, likewise, dogs, monkeys, sheep, gazelle, pig, wild boar, bears, and cats may all be recognized (Pl. XXXVII, XXXVIII). But other individuals could equally well represent foxes, jackals, dogs, hyenas, felines, or hybrid creatures of the sculptor's fancy.

In each animal there is again a combination of naturalism in their pose or movement with simplification or convention in the rendering of their form and features.

Short fur is not usually indicated, but shaggy coats are drawn by outlining separate tufts. In many beasts the fur at the neck or rump or elbow is marked by rows of nicks. The bristly spine of a boar becomes a sharp ridge hatched with serried lines (Pl. XXXVII, 11). A lion's mane (Pl. XXXIX, 2) or monkey's scalp (Pl. XXXVIII, 3) stands out in shallow relief scored with long, flowing, or short parallel grooves. By a curious convention, the contours of shoulders, thighs, and jaws are doubled by a shallow groove drawn parallel to their outline.

Many of the beasts are shown in action; pursuing the prey, awaiting attack, or merely eating grapes. The bodies are often crossed by trailing stems of vine.

Of the human figures in this ceiling only a few are worth reproducing, although fragments of limbs and trunks were fairly abundant. The figures seem generally to represent

¹ Cf. stucco reliefs from Kish; *Survey of Persian Art*, Vol. I, p. 615, Fig. 193 c.

² In stucco, cf. *Survey of Persian Art*, Vol. I, p. 608, Fig. 185, from Kish; in rock-sculpture, *ibid.*, Pl. 168 A, Taq-i-Bustan.

³ Cf., for example, a goose on a piece of silk twill illustrated in the *Survey of Persian Art*, Pl. 202 c; and a painted copy of a Sasanian textile reproduced by Herzfeld, *Am Tor von Asien*, Pl. LXIII.

⁴ Cf. Strzygowski on the similar birds depicted in the Mshatta façade; *Fahrbuch der Königlich Preussischen Kunstsammlungen*, 1904, p. 307: 'ein gattungsloser Durchschnittstypus "Vogel" getreten ist, halb Perl- oder Rebhuhn, halb Taube.'

themes of rural life, the vintage, hunting, and pasturing. Disconnected fragments include hands grasping weapons or balls, and baskets. Some figures are nude, others clothed; a fragment on Pl. XXXIX, 9, shows two embracing. Of the others on the same plate no. 1 wears a loin-cloth; no. 2 is attacked naked by a lion; no. 10 squats piping in a diamond-chequered long-sleeved smock; and no. 6 stands in a long, patterned skirt suspended from a twisted band at the waist; a bunch of grapes hangs before his bare chest.

Divorced, as we have to show them, from their shadowy elevation in the hollows of the vaulting, the crudeness of these figures is painfully exposed. But it is not hard for imagination, guided by the analogy of extant mosaic floors, and by the comparable sections of the Mshatta façade,¹ to recover not only a notion of the design but even some impression of that richness and fantasy which the ceiling when intact must have displayed. But the aspect which is of most interest, in comparison with the other classes of sculpture at Kh. al Mafjar, is the feeling of vitality which these wreathing vines, with their loaded clusters and quaint population, can evoke, of men and beasts in movement, of fruits waiting to be plucked, and birds to be snared or tamed. In short, for all its naïve fancy, its pictorial crudeness, and its stylization in detail, the ceiling exhibits a human and descriptive, even a humorous quality, which is notably absent from the next group of sculptures to be described.

Something of the same character belongs to the fragments shown in Pl. XXXVIII, 2, which, though coming from a different context, must be classified with the ceiling of the entrance hall. The fragments belong to the wall decoration of the domed chamber in the baths. They show a dog, a bear, and part of a human figure, in a vine-trellis. The figures are smaller in scale, but similar in drawing and style to those in the ceiling. The human figure wears a fleecy smock, edged with a row of beads, over baggy, patterned trousers, a costume repeated in other figures to be described below. He plucks, to all appearance, a stringed instrument. The vine-scrolls contrast with the foregoing by the rigidity of their movement and monotonous alignment of their leaves. The vine leaves are drawn in the stylized Sasanian manner.

Busts

The next series of reliefs consists of the human busts illustrated in Pl. XL. Of these the group of six at the bottom are the only ones whose exact position in their architectural context is known. The group as shown in the photograph was provisionally assembled, in the Palestine Museum, from fragments of a hemispherical dome found fallen in an apsidal chamber adjoining the north-west corner of the main hall of the baths. The dome itself was of brick, and rested on a high masonry drum pierced by six windows fitted with ornamental plaster grilles. The dome and the drum, as well as the walls and pendentives which supported them, were encrusted all over with stucco; the greater part of the fragments recovered belonged to the drum and dome, of which the portion illustrated composed the crown. Parts of two pendentives are seen in Pl. XLI, 6-9.

The decoration of the dome was disposed in concentric zones, of which we are here concerned only with the innermost. The central feature is a six-petalled flower, cupped

¹ Especially triangles *D* to *K*.

in the hollows of six concave five-lobed leaves. From this as centre there radiate six acanthus leaves in high relief, boldly undercut. The busts are set between these, male and female alternating. The composition is framed by an undulating border, consisting of a kind of torus carved with a vine-leaf scroll, and defined on each side by a bead and reel moulding between plain fillets. The vine-scroll torus is entirely hollowed out so that the design stands clear, leaving visible through the spaces a flat strip of plaster painted red.

The six busts are identical in form, with the sex distinguished only by spherical drop-ear-rings on the females and traces of black paint indicating moustaches and well-trimmed beards on the males.

The hair is disposed symmetrically in three rows of snail curls¹ about a central parting; it is painted black. The faces are oval, narrowing slightly below the level of the eyes. The mouths and chins are small, and project abruptly from the surface of the cheeks.

The brows are boldly arched and clear cut. They form a crisp curving edge where the receding planes of the eye-sockets cut into the smooth convexity of the forehead. Inwards the sharp curves of the brows are produced to define on each side the slender and slightly aquiline ridge of the nose; outwards they fade away as the sides of the head round off into the cheeks. The eyes and lids are modelled in prominent relief against the receding plane of the sockets. The pupils are deeply drilled; the irises not indicated.

There is a geometrical, abstract quality about these heads, especially the brows, eyes, and nose, which is typical for the whole series of human sculptures at Kh. al Mafjar. It is a result of the method of rendering the more complex regions of the face in terms of simple intersecting surfaces.² This simplification, unconscious or deliberate, will be seen with minor variations in all the heads to be illustrated here.³

Besides black colouring on the hair, there are traces of black on the brows, eyelids, and pupils. The lips are touched with yellow, and the globular ear-rings of the females are the same colour.

The two rows of busts shown in Pl. XL, 1, with their interlaced framework of pearl-set bands, were pieced together from fragments found in the entrance hall of the palace.⁴ They had fallen from the flat surface of the south wall and must originally have been set at a fairly high level, well above the cornice (itself not less than 4·85 m. above the ground) which marked in all probability the springing of the vaults.

The scheme of the strapwork which encircles the busts has been restored with certainty, but not the extension of the pattern sideways or vertically.

The heads are inferior in quality to the foregoing, but show clearly their affinity with them. The eyes are crudely, almost childishly, modelled with prominent lids forming a clumsy ring round the eyeballs. The mouths are small and thin, with drilled corners.

¹ Each row forming a kind of scroll, as in many Palmyrene busts, as also on heads from Dura-Europos, and in Parthian and Assyrian sculpture.

² A method noted by M. Avi-Yonah as characteristic of oriental work (*QDAP*, Vol. X, pp. 116 and 138); illustrated by Nabataean examples (*ibid.*, Pl. XXII).

³ Cf. also a stone head illustrated in *QDAP*, Vol. XII, Pl. X.

⁴ See *QDAP*, Vol. VI, p. 159 and Pl. LI, 2.

The hair is dressed either in curls or in slightly wavy furrows sweeping up from the forehead; in either case it is parted in the centre. Two of the heads wear a shallow turban. There is no trace of colour on any of them.

The costume is a tunic beneath a mantle draped round the shoulders. In some cases the folds are patterned with wavy lines and dots or with rows of wedge-shaped nicks.

The hands, protruding from the folds of the mantle, are summarily indicated in low relief, as are the shoulders. The heads, leaning forwards, are carved three-quarters in the round. Some of them look slightly to right or left.

Pl. XL, 2, is one of two similar busts, both now headless, of a type which is attested by several further fragments. They were found, like the foregoing, in the entrance hall of the palace, and seem to have come from much the same position on the walls. The fragment seen still adhering to the border below the bust can be identified as the tip of an ornamental 'crenellation' which surmounted an arcaded motif traversing the wall at some level which cannot be determined.

The bust differs from those in the last group mainly in the costume and in the forearms, which are carved fully in the round and project straight out from the plane of the wall. There is no indication of drapery on the chest; but there are sleeves on the forearms and some sort of shawl is wrapped round the shoulders and arms.

The fragment numbered 6 was perhaps the least crudely sculptured of them all. It illustrates well the characteristic modelling of the eyes and brows, with the incised eyebrows as a variant. The impression of bricks on the back shows that the head came from somewhere in the vaulting, probably near the crown, where the groin borders came together in a pearl-studded ring not unlike that which encircles the bust.¹

In all these heads (and in most of the remaining human figures to be described) the clumsy, cursory modelling of the ears and their forward pose; the unnatural size and protuberance of the eyes, with their drilled pupils and deeply cut corners; the small pouting mouths; the conventionalized hair and the impassive staring faces, combine to convey that blank and impersonal character which stamps the comparable sculpture of early Palmyrene, Nabataean, Parthian and, later, Sasanian portraiture.²

Independent Sculptures

The free-standing statuary of men and beasts, which forms the last group to be described, covers so wide a range of scale and themes that a meticulous classification might subdivide it. But for the present purpose it is enough to note that some of the fragments to be dealt with, especially a collection of small and medium-sized human figures from the entrance hall of the palace, some of them mounted on horses, display a more lifelike and descriptive character than the rest, and in this bear resemblance to the figures from the ceiling of the same hall.

¹ For a human bust in a medallion similarly employed in Parthian Seleucia on the Tigris, cf. Manasseh, *Excavations at Tel Umar*, Second preliminary report, Pl. XI, Fig. 1.

² As a purely ornamental device the human head, or head and shoulders, framed in a panel or otherwise, occurs in all those provincial architectures, Mesopotamian, Syrian, and Nabataean, which fringe the eastern Roman world. Whereas the idea may be traced to the Roman funerary bust, it is characteristic that in Umayyad architecture such heads have lost all personal significance.

The fragments numbered 14-17 on Pl. XXXIX and 1, 2, 4, and 5 on Pl. XLI were all found in the debris of the entrance hall to the palace. So far as we can infer from the evidence,¹ the figures stood directly above the acanthus cornice which traversed the walls and piers above the capitals of the latter, and carried the springing of the brick vaults.

Equestrian figures. The fragments brought together on Pl. XLI represent the remains of four equestrian figures, two facing to right, two to left. They vary slightly in size. The upper parts of all the riders are missing, or at least cannot be identified with any of the heads or torsos from the same context. Nevertheless, comparison of the fragments with each other, and also with the head of a horse from the entrance to the baths (Pl. XLI, 3) makes it possible to draw certain conclusions about both the horses and their riders.

Beginning with the latter we may note that immediately above the boots, which on no. 1 are painted black, but show no details, there appear on nos. 1 and 2 the bottoms of baggy trousers or leggings drawn tight at the ankles. These are typical of male costume at Kh. al Mafjar, and recur both in the small standing figure (Pl. XXXIX, 5), and also in the life-size statue, to be described below, which is seen in Pl. XLV, 1. In each case these trousers are ornamented with a diamond pattern of criss-cross lines.

Above the trousers both riders wear a long tunic with square-cut skirt reaching the calves. This is conspicuous on no. 2, but has been partly obliterated on no. 1 by the blow which has damaged the lower part of the leg of that figure; even so the front corner of the skirt is visible immediately in front of the damaged portion and above the trouser. I take it that this corresponds to the long garment worn by the standing figure, no. 5 on Pl. XXXIX.

I am doubtful how to explain the next feature. On both no. 1 and no. 4 there appears a diagonal line, crossing the leg downwards from front to rear, which on no. 1 forms the top edge of an area decorated with diagonally intersecting lines, and on no. 4 is decorated with a row of beads or pearls.

At first sight it is tempting to identify this feature with the top edge of some such legging as appears, suspended in front, on a post-Sasanian king depicted on a silver plate in the Hermitage Museum.² But this would leave unexplained the clear differentiation, on no. 1, between this garment and the baggy trousers seen at the ankles, and also the appearance between them of the square profile of a skirt. On the other hand no. 4 preserves just enough of the beaded edge to show that it returns downwards at the rear; and this suggests that it may represent the corner turned back of some loose overgarment or long coat. If this interpretation is correct we may perhaps connect the rider of no. 4 with the headless torso illustrated at Pl. XXXIX, 7, which also wears a garment, opening at the top, of which the lapel, held on the right shoulder by a globular fastening, is decorated with a row of pearls. Perhaps this is identical with the long coat, opening down the front, which is worn by the statue on Pl. XLV, 1; the skirt of that statue is furnished with slits up the sides, all edged with beads.

The form of the saddles on which these figures ride is best seen in nos. 1 and 2. It is rounded in outline and fits over a slightly larger pad of the same form. The girth is

¹ Impressions of stone-work on the back of certain fragments, and a horse's hoof attached to a fragment of cornice.

² Orbeli and Trever, *Orfèvrerie Sasanide*, Pl. 15; also *Survey of Persian Art*, Pl. 208 B.

seen in nos. 2 and 5; it is woven in chevrons or diamonds. The saddle is held by a breeching, visible in no. 1, where it is decorated with beads or studs, and by a breast-strap either plain as in no. 1, or beaded as in nos. 2 and 5. In no. 1 the breast-strap is tied to a loop emerging from beneath the pad of the saddle. The reins, in nos. 1 and 2, and also in the horse's head from the baths, no. 3, are twisted cords. A stirrup-leather seems to be represented in no. 1, hanging from between the pads of the saddle. But it is noteworthy that stirrups were not generally used by Sasanian riders.¹



FIG. 1. Fragments of a harnessed horse from Palace entrance

The form of bridle is given by nos. 3 and 5; also by the fragments drawn in Fig. 1. In each case the cheek-piece is decorated with beads; it is attached, in Pl. XLI, 5, and in Fig. 1, to a front similarly decorated, the points of junction being hidden by the forelock, which from a central parting sweeps down in front of the ears to frame the forehead. In Pl. XLI, 2, and in the head from the baths, no. 3, the horizontal frontlet is omitted, but is replaced in the latter by a vertical strap passing from the nose-band up between the ears to join with the top of the cheek-pieces. This same horse, no. 3, wears round his neck, immediately behind the jaw, an ornamental collar with discoid pendants, such as adorn the harness of some Sasanian monarchs' steeds.² A second collar or plaited thong, which descends vertically from the arch of the neck, is broken off below and cannot easily be explained.

In the portrayal of the horses themselves³ the Mafjar sculptors are seen at their best. The fragment of a horse's muzzle shown in Fig. 1, with which should be compared part of a head belonging to one of the four winged horses from the domed bath chamber (Pl. XLI, 9), is more sensitively modelled than any of the animal figures from the ceiling. The rendering of the eyes and face displays the same addiction to crisply intersecting surfaces which gives to the human heads their abstract geometrical quality. The mane and forelock likewise form a pattern of almost geometrical character. The chest muscles of no. 3 are modelled to suggest a kind of channelled breastplate (cf. p. 110 below).

Each figure seems to have stood flat against a wall, with only the horse's head and the torso of the rider turned toward the spectator. In no. 3 the general plane of the head is parallel to the wall; but the features are brought round to the front so that both eyes may be seen.

¹ However, in the frescoes from Qaṣr al Ḥair, now in the Damascus Museum, a huntsman in Iranian garb uses a stirrup. See *Syria* XXV, Pl. A, and M. Schlumberger's remarks on the subject on p. 100.

² Cf. the breast-band and breeching of the charger of Chosroes I, as portrayed on a silver-gilt plate in the Metropolitan Museum of Art, *Survey of Persian Art*, Pl. 213. Other common features in the trappings of these horses, the beaded bridles and fastenings of the saddles, follow a fashion which is much older than this, as shown by graffiti at Dura-Europos (Rostovtzeff, *Dura-Europos and its Art*, p. 96, Pl. XVIII, 1) and early first-century Palmyrene sculptures (Seyrig, in *Syria*, Vol. XVIII, 1937, p. 52 and Pl. III; also Vol. XXII, 1941, p. 34, Fig. 3).

³ Following again Sasanian models; cf. the fragments of stucco horses in Berlin, illustrated in *Survey of Persian Art*, Pl. 175.

Unmounted figures. Of the unmounted figures in this class, also from the entrance to the palace, the fragments which seem best worth reproducing are given in Pl. XXXIX, 3-5, 14-17. Each of those numbered 3-5 belongs to a male figure clad in a garment which is worked over with a scale-pattern. There must have been two such figures at least, for nos. 3 and 5 will not join. The pattern might be thought to represent scale armour or chain mail:¹ but the wide opening at the neck of the tunic of no. 3, and the rows of beads along its edges, seem hardly compatible with that hypothesis. On the whole it is more likely that the scales represent merely some woven pattern.²

The figure represented by fragment no. 5, with its full skirt, baggy trousers of diamond-patterned material, and sword, has its counterpart in the much larger statue reproduced on Pl. XLV, 1. The small figure also had its belt, though this cannot be seen in the photograph. On the other hand its skirt is not divided, and its sword may have been suspended from the right shoulder by a baldric, if no. 4 belongs.

The tunic of no. 3, which may or may not represent the same garment as that worn by 5, with its lapels edged with beads, seems paralleled by that of the larger torso numbered 7 (see p. 107 above). The two fragments together suggest how the statue of Pl. XLV may have been completed.

Each of these figures wore a sword on the left side, suspended either by a baldric (nos. 4 and 14) or a belt.³ No. 13 on the same plate is part of a sword scabbard from a figure of larger scale than 5.

Pl. XXXIX, 14-17 and XL, 3, 4, are heads broken from statues of varying size, all still from the entrance to the palace.

Nos. 3 and 4 of Pl. XL hardly differ from some of the busts described above, but from their pose and size seem rather to belong to free-standing statues. Of the rest no. 14 of Pl. XXXIX, the helmed warrior with baldric across his shoulder, is the most interesting. His helmet has a conical crown, built up of triangular-shaped pieces, and is furnished with heavy flaps covering the ears. Mayer⁴ quotes this as an early example of a type which lasted till the fourteenth century. The eyebrows, beard, and moustaches on the head are drawn with black paint, as they are also on the smaller fragments numbered 16 and 17. No. 15 wears a turban or shawl wrapped closely round the head and face.

Winged horses. Each of the groups given on Pl. XLI, 6, 7 once occupied a pendentive in the domed apsidal chamber which, from its sumptuous decoration, elegant structure, and proximity to the hot rooms, I infer must have been designed for the private post-balneal relaxation of the owner of the palace.

Amongst the shattered fragments of these horses, or *pegasi*, there is evidence of at least three separate animals, and we may be sure from the context that not less than four existed.

Each horse was encircled by an acanthus wreath within a ring of beads or of bead and reel ornament. The wreaths were half-round in section, and consisted each of four

¹ Either would be possible at the period. See discussion by Clark-Hopkins, *Excavations at Dura-Europos, Third Season of Work*, pp. 79-82.

² Cf., for example, the same pattern on the trousers of Chosroes II in one of the reliefs at Taq-i-Bustan (Herzfeld, *Am Tor von Asien*, Pl. XLII).

³ On the two methods of wearing a sword in early Arab times see L. A. Mayer, 'Saracenic Arms and Armour' in *Ars Islamica*, Vol. X, p. 9.

⁴ L. A. Mayer, *ibid.*, p. 6.

lengths of minutely carved acanthus leaves arranged in overlapping sheaths, joined by short sections of twisted rope or basket-work. The surface enclosed by each wreath was coloured yellow, and against this the horses were carved in high relief. The little acanthus sheaths were too delicate and too deeply undercut to survive; and hardly a leaf remains intact.

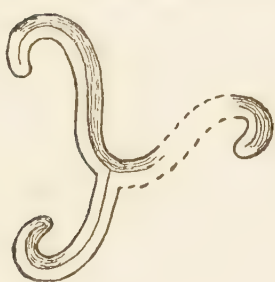


FIG. 2

The horses are in full flight, the near wing raised, the far one outstretched below the head. The necks are arched, the legs gathered up in a gallop, and the fluttering scarf of Sasanian royalty flies behind. They are a pure Sasanian theme, repeatedly depicted in stucco, textiles, and seals,¹ and have inspired here the most lively of all the sculptures at Kh. al Mafjar. The wings are shaped and feathered exactly like those of a Sasanian peacock-dragon; banded across the middle, tips curving forward, and with two hook-like projections below.² The chest-muscles, carved in abrupt relief, resemble a scalloped breast-plate, and well convey the mythical strength of the beasts.³ The rump is engraved with a mark or brand⁴ (Fig. 2).

The largest of the fragments, no. 2, measures about 60 cm. in length. The diameter of the roundels was approximately 1.10 m. The horses project, at their point of greatest thickness, about 20 cm. from the background. The upper wings were completely undercut, and stood out 19 cm. from the background; a little column of plaster supported them.

In their lofty position overarching the most sumptuous of all the palace rooms, these flying creatures strike me as the boldest and most admirable of all the reliefs at Kh. al Mafjar.

Partridges. The base of the drum, which in this same chamber carried the dome, rested upon an acanthus cornice. Beneath this a frieze of partridges, surmounted by a vine-leaf scroll, passed in continuous procession round the topmost edge of the pendentives.⁵ The birds, of which six are shown in Pl. XLII, 13, must have numbered about eighty.

The partridges stand 23 cm. high on a narrow projecting band which is painted dark red. They were spaced at 16 cm. intervals. Apart from a certain stylization of the wing-

¹ In stucco cf. a similar fragment from the excavations at Ctesiphon (Kühnel, *Zweite Ktesiphon-Expedition* 1931/32, p. 20, Fig. 37). For textiles cf. an almost identical beast (also in a roundel) depicted on a piece of Sasanian silk-twill illustrated in the *Survey of Persian Art*, Pl. 202 B. Cf. also a fragment given by Romdahl in *Studien zur Kunst des Ostens* (Festschrift Strzygowski), Pl. XXVII, 2. Kühnel quotes three other textile parallels. For cylinder seals see Steindorff, *Sassanidische Siegelsteine*, Pl. III, 1388, &c.

² Cf. a stucco roundel of a dragon in Chicago, illustrated in *Survey of Persian Art*, Pl. 177 F. Also two plaques with symmetrically disposed wings from Ctesiphon (Reuther, *Ktesiphon Expedition* 1928/29; also *Survey of Persian Art*, Pl. 174 A, B).

³ Cf. another Sasanian dragon, on silk, illustrated in *Survey of Persian Art*, Pl. 200. Much earlier the same convention appears on a Palmyrene relief of a horse published by Seyrig in *Syria*, Vol. XXII, 1941, p. 34, Fig. 3.

⁴ Like that which is engraved on the haunch of a gryphon from Palmyra (early first century). *Vide* Seyrig, in *Syria*, Vol. XXII, 1941, p. 41 and Pl. III. Cf. also the *ankh* branded on the charger of Chosroes II at Taq-i-Bustan (Herzfeld, *Am Tor von Asien*, p. 87 and Pl. XLIII).

⁵ For the same motif in painted plaster at Samarra see Herzfeld, *Die Malereien von Samarra*, Pl. XLVIII.

feathers, the modelling of the birds is realistic, and detailed markings are added in colour. The head, breast, and legs are painted a darkish yellow ochre; the wings a dark purplish-brown, with specklings of still darker colour in the oval region defined at the top of the wing. The breast and legs are flecked with curving strokes of dark red. The centre of the eye is dark red and the ring encircling it black or very dark reddish-brown.

The thickness of each bird is from 5 to 6 cm. The heads lean slightly outwards from the wall and though unworked behind are cut in the round.

A rather smaller group of almost identical birds was recovered from the entrance to the baths, and a few examples from the entrance hall of the palace.

Animal figures. The notion of encircling a room with a frieze of living creatures was repeated on a larger scale in the entrance to the baths. The fragments assembled on Pl. XLII, 1-10, are selected from the remains of at least twenty nearly life-size animals which were found associated with the ruins of a rectangular porch, which sheltered and preceded the central of three doors giving access to the main hall of the baths from the east side. It appears that this porch was roofed by a brick dome resting on a drum carried by pendentives.¹ The dome was encircled at the base by a cornice of windswept acanthus leaves, on which there rested a row of gazelles, sheep, and other beasts, kneeling in the posture illustrated on Pl. XLII. It is a matter of conjecture whether, at the great height at which they were seen, these beasts were intended as pure decoration, or whether they conveyed to those entering the baths some reminder or promise of the pleasures of the chase. The posture is not the gallop of flight but rather the kneeling pose of the slaughtered quarry set out for counting.²

Nos. 1-3 on the plate are gazelles, selected from at least ten; 8 and 10 are fat-tailed sheep, selected from three or more. All of these had fallen from the same cornice. Not a single head was found to fit the gazelles; but the horned fragment numbered 11 probably belongs to one of them. Most of the animals measure about 45 cm. from chest to tail; only no. 5, measuring 27 cm., is appreciably smaller than the rest.

The bodies of the gazelles are painted buff, with black lines outlining the legs and chest muscles. The inner side of the near leg, the buttocks, and the belly are white; so also, on some animals, is the upper part of the chest. The hooves are black.

The two fat-tailed sheep (nos. 8 and 10) have kept their heads; but only 8 has the remains of a great curled horn parallel to the face. The artist has attempted, with indifferent success, to render the shaggy coats of these two animals by painting tufts of red on a buff ground. The lower parts of the belly and of the buttocks are white or paler buff. The horn has traces of black. One other fragment, which I have not illustrated, is part of the head and horn of a goat.

Nos. 4-6 and 9 on the plate represent a kind of mountain sheep or ibex; these, too, were found fallen near the entrance to the baths, but impressions on the back show that, unlike the gazelles, they were applied to a flat surface, previously decorated with a

¹ How the dome was set on the rectangular space to be covered has not yet been exactly determined.

² If indeed we need attribute to it any particular significance. The pose appears in Sasanian cylinder seals showing animals of various sorts, including gazelle, ibex, and hare (Steindorff, *Sassanidische Siegelsteine*, Pls. II and III).

plaster ornament, which can be assigned with fair certainty to the façade of the building.

All these animals except no. 4 are bearded, and have horns banded with chevron rugosities. The head of no. 4 is smaller than the rest, and the bands on its horns are straight.

Each beast wears a trefoil pendant suspended by a ribbon from its neck; the ribbon on no. 9 has a row of beads. Some traces of buff colour on no. 6 are the only sign that these were ever painted.

The ibex, if such it is, is a favourite subject, flying or falling transfixed, in Sasanian hunting scenes; but a tame variety like ours, wearing the same beaded ribbon and pendant, is also common on seals and textiles.¹

No. 7, presumably a lion, belongs probably to the same context as the ibexes; I cannot identify the object on its back.

The last of the fragments on Pl. XLII, 12, represents the head and paws of a hare, washed over with golden-brown paint.

Human figures. Probably the most conspicuous feature, though seen at a considerable height, in the decoration of the entrances to both the palace and the baths was a series of human statues; which, in spite of some naïve aberrations from nature's proportions, approximate to natural size.

In the entrance to the palace at least two such figures stood on the acanthus cornice which traversed the north and south walls at the level of the springing of the vaults, some 4.85 m. above the floor. One of these figures, which has survived almost complete, was the dancing-girl illustrated on Pl. XLIII, 4. The second has almost entirely disappeared.

From the ruins of the entrance to the baths fragments of at least ten similar figures, five male and five female, were recovered, with an approximately equal number of plastered niches in which they had stood. It is clear that these niches and statues, ten or perhaps twelve in number, were set in the concave face of a curving wall, and we conclude with fair certainty that they decorated the drum supporting the dome of the porch.

A selection from the remains of the statues is given in Pl. XLIII.

As a portrayal of the human face and form the figures display much the same impersonal and abstract quality that was characteristic of the busts. Painted details on some of the faces scarcely avail to humanize the portraiture. The torsos likewise give little more than a generalized rendering of a certain kind of figure; heavy-shouldered, buxom, and squat; defeating all imputation of sensuality. The statues represent not persons but types; and not so much types as lay figures on which to hang such typical attributes as seemed appropriate to the sculptor. Amongst these it is clear that the superficial adornments, the costume, hair-style, facial embellishment, and accessories were of primary concern.² Only the most obvious anatomical traits received some broad and unsophisticated handling.

¹ e.g. a silk fragment in Lyons (Herzfeld, *Am Tor von Asien*, Pl. LXI; also in *Survey of Persian Art*, Pl. 202 A). The wild ibex in flight is represented on several silver dishes of Sasanian date. Part of the head of an animal similar to ours from Qasr al Ḥair al Gharbi is shown in the *Comptes Rendues de l'Académie des Inscriptions* for 1937, p. 139, Fig. 6. The ibex on cylinder seals is illustrated by Steindorff, *op. cit.*, Pl. II, 1229, &c.

² In this, I think, we have another example of that typically oriental attention to visible attributes which Rostovtzeff remarks in the paintings and sculpture of Dura-Europos (*Dura-Europos and its Art*, pp. 82 ff.).

Amongst the women the hair is much more elaborate than in any of the busts. It is arranged in three heavy twists descending on each side of the face from a central parting which is sometimes covered by a rosette. In no. 6 the lower ends of the coiffure are caught up on each side in a bulky knot coiled horizontally. The fringe, symmetrically divided, forms two little rows of snail curls, which are either suspended individually or connected in a kind of scroll. A twisted lock hangs before the ears. Except in no. 4 the hair is painted black. In no. 1 the fringe and side-locks are rendered only in paint; in no. 6 they are omitted.

Besides the hair, in all except no. 4 the brows, eyelids, pupils, and nostrils are painted black; the lips are red. Each figure, except no. 4, wears big globular ear-rings, and all some kind of necklet; this in nos. 1, 2, and 6 consisted of a string of flowers, or of flowers and beads, painted in red and black on the bosom. The basket of flowers held by no. 1 is painted in dark crimson and yellow ochre; the daisies grasped by no. 4 have yellow petals, with a crimson background and crimson stalks. Bracelets are worn on the arms and ankles. Folds of fat along the throat and midriff enhance the opulence of the figures.¹

None of the male heads survives intact; but the detached fragments numbered 5 and 6 on Pl. XLIV probably belong to this group. The hair on 6 is arranged, as in most of the busts, in rows of curls forming each a continuous 'wave' scroll. Eyebrows, drooping moustaches, and a close-trimmed beard such as bedouin still affect, are done in black paint; the side whiskers are in shallow relief. The lips are touched with red.

The bodies of the men are summarily modelled: only in one fragment (not reproduced) is there some crude indication of the contours and musculature of the chest and midriff.

The costume of all the women on this plate is the same: a skirt wrapped round the legs and held at the hips by a twisted band. The ankles and feet appear immediately below the lower edge of the skirt, where one would expect to see the knees; the figures are consequently dwarf-like in proportions.

To-day all trace of colour has disappeared from no. 4, except on her bouquet; but the skirts of each of the others are painted in crimson, of one or two shades, a pinkish-red, white, and black.² On no. 1 the pleats in the skirt are not modelled but painted in darker crimson bands, which fall away from the border toward the sides. Over these the pattern is laid in white; it represents a diagonal network of intersecting arcs forming square compartments each of which encloses a small diagonal square divided into quarters.

In no. 6, one red or crimson pleat alternates with three or four white ones; over these, too, there are traces of some pattern in white with black dots. In no. 2 the pleats are red, again with faint traces of a black pattern. In no. 1 the twists of the waistband are indicated only in paint, black, white, and pink.

¹ An oriental preference; cf. the creased throats of many Palmyrene busts (Ingholt, *Palmyrensk Skulptur*, plates, *passim*).

² I hesitate to specify the colours, since they fade swiftly and are already too mottled or faint for exact description.

The skirt border in all four statues is the same, a simple fret in relief. In no. 1 the alternating compartments are picked out with black on a pink ground.

Pl. XLV, 7 shows the lower part of another female figure, apparently from the same context, though slightly smaller in scale. Here the skirt has no opening in front, and the bottom edge forms a single diagonal line rising toward the left of the figure. The pattern is arranged in bands on which the details are incised and coloured alternately crimson and vermilion. The head numbered 4 in Pl. XLIV might belong to the same figure.

Of the five men represented by the surviving fragments all except one wore a loin-cloth or short breeches, like no. 5 on Pl. XLIII.¹ The cloth is again red, with traces of a whitish pattern. Bands of darker red encircle the thighs at the bottom of the breeches.

The warrior numbered 3 on Pl. XLIII is alone of his kind. His head has not been recovered, and only a fragment of his right arm. This was bent forward at the elbow, and presumably grasped a spear.

He wears a cuirass or short-sleeved tunic of some kind of scale-armour. This, if the sculptor was exact in his rendering, was composed of horizontal rows of semi-oval plates or scales, attached to strips of cloth or leather. The edge of the strips may be seen below the scales they support, concealing the attachment of the row beneath.

At the waist there is a narrow belt or band, drilled with a row of holes. Similar bands alternate with the rows of scales on the sleeves.

Below the cuirass there appears the bottom of a pleated kilt; and below that the edge of a pair of close-fitting short breeches. The calves and feet are bound with straps resembling bandages.

The figure supports with its left hand a round shield, having a central gadrooned boss and concentric rings of ornament, done in dark crimson or black paint on a pinkish ground. The two principal bands of ornament consist of a wavy line with alternating dots, and a leafy scroll.

The whole of the costume is painted in different shades of red. The rows of scales are alternately a dark crimson and vermilion; the pleats of the kilt, being likewise crimson, are separated by lines of very dark plum.

The equipment as a whole could have been copied, it seems, from the figure of some provincial foot-soldier wearing the Roman *lorica squamosa* or scale-armour cuirass.² At the same time undue prominence would seem to have been given, in the cuirass, to the edges of the underlying material seen between the rows of scales; and it is just possible that what the sculptor had in mind was a different form of mail, in which the scales were bound in horizontal rows by thongs appearing externally. This form of armour appears in Palmyrene reliefs as early as the first century³ and was also developed by the Sasanians.⁴

After the unrelieved and somewhat oppressive orientalism of these figures, so ungainly

¹ Cf. the athletes depicted at Quşayr 'Amra (Musil, *Kuseir 'Amra*, Pl. XXVI).

² Cf. Daremberg and Saglio, *s.v. lorica*, p. 1315.

³ Vide Seyrig, in *Syria*, Vol. XXII, 1941, pp. 37-8; also *Berytus*, Vol. III, 1936, p. 137 and Pl. XXX; also, *Syria*, Vol. XIII, 1932, p. 262 and Pl. LVII.

⁴ See Hans Stöcklein in *Survey of Persian Art*, Vol. III, p. 2557, and Pl. 21 in Orbeli and Trever, *Orfèvrerie Sasanide*.

in form and impersonal in expression, it is refreshing to turn to the little fragment of a draped female statue in Greco-Roman style which is shown on Pl. XLV, 5. Its companion, no. 6, with which the head on Pl. XLIV, 7 may be associated, reverts again to the manner of the larger statues. These three fragments (with two detached feet proving the existence of at least a third figure on the same scale) were found in the debris which filled the central of three semicircular *exedrae* in the west wall of the main hall of the baths, facing the entrance. We assume that these are the remains of a series of figures which stood in a row of semicircular niches high up in the wall of the *exedra*.

The inclusion in this context of a statue clearly contemporary with the rest, yet displaying a Hellenism of which the others show no trace, is one of those vagaries with which the Umayyad artist repeatedly confronts and intrigues us.

Pendentive figures. The figures shown as 1 and 2 on Pl. XLIV are two of four which decorated the pendentives in the entrance to the baths. Of the others, two unattached heads (Pl. XLIV, 3 and 8) and some fragments of arms and legs have survived. The heads show that all the figures were male.

The figure numbered 1 stands on his right leg with his left foot raised; in no. 2 this posture was reversed. The arms are raised to support a cornice of wind-swept acanthus leaves which united the tops of the pendentives. The posture recalls that of the winged *genii* which in a painted tomb at Palmyra support medallions containing effigies of the deceased.¹ But the legs show that the sculptor really had two conflicting notions in his mind: on the one hand a caryatid or Atlas, on the other a dancer or juggler; and for this second notion we must go for comparison to the rather similar figures, of sixth-century date, which are seen to carry a fantastic candelabrum in the mosaic floor of St. John the Baptist's Church at Gerasa.²

The figures wear loin-cloths similar to those of the male athletes from the niches, and like them coloured red. On the figure illustrated the twisted belt shows trace of both red and black. The legs are as usual abnormally thick and short; the muscles are summarily suggested. The hair is painted black. The eyebrows and eyelids are also black and the lips red.

The 'Caliph'. The last of the statues that we have to describe is that of which fragments are shown on Pl. XLV, 1 and which has received the nickname of the 'Caliph'.

This personage stood in one of two similar niches found lying in front of the entrance to the baths, in a position to suggest that they formed part of the front elevation of the building. The existence of a second statue, which must have stood in the other niche, is proved by the bottom of one leg similarly clothed.³ The inner surface of both niches was

¹ Vide Chabot, *Choix d'inscriptions de Palmyre*, Pl. XVIII, cf. p. 100. Chabot compares these figures with winged Victories, which appear as angels in the mosaics of S. Prassede at Rome.

² See Kraeling, *Gerasa, City of the Decapolis* (American Schools of Oriental Research), Pl. LXIX b.

³ There is nothing to prove which of the two statues owned the head shown on Pl. XLV, 2, which does not join any other fragment. The title of 'Caliph' as applied to one or other of the figures is not necessarily misplaced. If correct, it gives to the second statue a special significance; for it implies that the builder was himself some person other than the Caliph, but one who could presume to place his own effigy on a level with that of the sovereign. Does this tend to support the suggestion that the builder may have been not Hishām himself, but his nephew Walīd ibn Yazīd? Cf. note 2 on p. 101 above.

encrusted with ornamental plaster, and the impression of this remains visible on the back of the statue.¹

The imposing size and august stance of the figure at once recall the effigy which occupied, in the contemporary palace of Qaṣr al Ḥair al Gharbi, a prominent place in the façade.² The 'Caliph' at Kh. al Mafjar stands erect, his left hand grasping the hilt of a sword. He is clad in a long, full-bottomed coat, opening at the front and girded at the waist with a jewelled belt. The coat is edged with rows of pearls, which are carried round two slits in the sides of the skirt. Beneath the lower edge there appears the bottom of a pair of baggy trousers drawn in at the ankles. The fronts of the feet are broken off; they were shod with boots of which the back halves remain.

The head (Pl. XLV, 2) was found detached; but there can be no question that it belongs either to no. 1 or to the second similar statue which undoubtedly existed. The surface of the crown is gone, so that we cannot say how it was covered; but it is curious to note that the hair stops short, on the right side, above the eye, as if the head were bald. The hair is not symmetrical. The beard and moustaches are shapely, and are most carefully rendered by close wavy grooves; both are coloured a golden brown. The hair of the head is less meticulously worked, and fades away at the sides. It shows very slight traces of a crimson paint which has spread a little on the forehead. There are traces of black on the eyelids and in the drilled pupils. The ears are, as usual, inadequately represented; small, childishly modelled, and facing forwards. The eyes are very prominent.

The costume as a whole is painted a rosy red, perhaps originally crimson. The depths of the jewelled belt and of the pearled edgings are black, as are also the outlines of the borders. The trousers are a dark red with traces of a flower pattern in a paler tint. The sides of the shoes are black. There are traces of red also on the sword, and a ring on the little finger of the hand. The sword has a crescent-shaped guard.

At the feet of the 'Caliph' two lions squat back to back, glaring fiercely. Their tails, passing between their hind legs, are held aloft and frame an eight-pointed medallion of split-palmettes adossed about a central daisy. The faces of the beasts are rendered in considerable detail; the manes, with flame-like locks, form a pattern in relief. The ribs and the leg-muscles are summarily suggested by shallow grooves.

The beasts are washed over with golden-brown paint.

Parts of the head and neck of another lion, of rather different aspect (Pl. XLV, 3 and 4) were found nearby, and may have been associated with the second figure.

It seems clear that the 'Caliph', as depicted at Kh. al Mafjar, was inspired by the figure of some Sasanian monarch; the meticulously tended and shapely golden beard and moustaches preclude any probable likeness to an Arabian prince. As noted above, the costume and pose are quite different from those of the corresponding figure at Qaṣr al Ḥair. The costume is in the fashion of the latest phase of the Sasanian kingdom, as

¹ The same pattern was impressed on the back of a second large lump of plaster recognizable as a torso. This piece is not here reproduced, since nearly all its surface had disappeared. It showed no details of costume save the uncertain traces of a collar of some sort at the base of the neck.

² The costume and pose of that figure are different, however, from ours; see M. Schlumberger's report in *Syria*, Vol. XX, 1939, pp. 328 f. and Pl. XLV.

illustrated by the standing figure of Chosroes II on one of the rock reliefs at Taq-i-Bustan.¹ There the king wears a long coat, with pearl border, over a pair of baggy trousers falling low and full over the ankles. Slits up the side of the coat may be seen in the costume of one of the elephant-riders in another of the same reliefs.² The same features appear on a post-Sasanian silver dish in the Hermitage.³ This shows a crowned figure seated on a couch surrounded by attendants. He wears a long tunic or coat, with collar and cuffs and jewelled belt, over long trousers which retain their fullness to the ankles. His attendants have similar trousers, and coats with slits up the sides and front.

The lions, too, may have been suggested by some Iranian scene; for two similar beasts, in almost the same pose, guard the throne of Bahram Gur on another post-Sasanian plate, of about the eighth or ninth century.⁴

Technique. It is almost inevitable to infer that the technique of stucco decoration, appearing in Palestine for the first time during the Umayyad period, could have come there only from Iran or from Mesopotamia, where it had served since Parthian times to cover cheaply and conveniently the brick structures habitual in that country.⁵ The exact channel through which the technique penetrated the Syrian region cannot, perhaps, be determined; but its apparition at Kh. al Mafjar, applied equally to stone and to brick surfaces, combined with numerous instances of Sasanian themes and ornamental motifs, shows that a strong current of Iranian fashion had flowed by the end of the Umayyad period from the Tigris to the Jordan.

Are we to infer that a group of Mesopotamian craftsmen was actually engaged in the work at Kh. Mafjar? Or, alternatively, must we suppose that an industry derived from Iraq had already at some earlier stage been established in the country?

There are, it seems to me, two features in these reliefs, which distinguish them from purely Mesopotamian work, and tend to suggest that by the second quarter of the eighth century the art of sculpture in plaster had already made itself at home in Palestine and Syria, and absorbed a large proportion of Syrian personnel. Only so can we explain, I suggest, the abundance of Syrian-Hellenistic motifs in the ornament, especially in the non-figural designs,⁶ and the presence of some figured sculptures still revealing that interest in the realistic and narrative function of art which distinguishes the grecized from the oriental temperament. A second sign of native workmanship is the fact that the reliefs were all carved *in situ*. In Iraq during Sasanian and early Islamic times stucco was normally⁷ applied in ready-moulded slabs; and one would expect that practice to be followed by any team of newly engaged Mesopotamians bred in the Sasanian school.

In fact, except perhaps for the partridges (p. 110 above), the reliefs and wall decorations at Kh. al Mafjar seem all to have been carved in position, not moulded. I infer this from the absence of exact repetitions and from numerous small indications in the reliefs themselves. It is clear, for example, that the statues were built up with lumps of soft plaster applied by hand and then carved. Here and there on inconspicuous places the carving

¹ Herzfeld, *Am Tor von Asien*, Pl. XLIV.

² *Ibid.*, Pl. XLVIII, enlarged in Pl. LXIII.

³ *Survey of Persian Art*, Pl. 230 B.

⁴ Orbeli, in *Survey of Persian Art*, Vol. I, p. 731 and Pl. 208 A.

⁵ See Debevoise, in *AJA*, Vol. XLV, 1941, pp. 46 ff.

⁶ *QDAP*, Vol. XIII, pp. 55 f.

⁷ Not invariably; see Debevoise, *ibid.*, p. 49.

is incomplete. Sometimes the lumps did not completely coalesce, and have now broken apart;¹ often the finger marks of the plasterer are visible on inconspicuous parts of a statue. The 'Caliph' and his attendant lions were built up round a core of bricks.

On Pl. XLIV, 3 I have placed together the head of one of the pendentive figures and a slab of underlying plaster, 3 cm. thick, which has split away from the back of it. On the reverse side of this slab the impressions of the stonework to which it was applied are still clear. On the upper face, seen in the plate, the outline of the head has been marked out in black and then traced with a groove about 15 mm. deep. The area within this has been nicked to hold the overlying plaster. The head itself fits neatly into place, giving a relief of 12-15 cm. above the surface of the ground-plaster. It was built up doubtless with lumps of soft plaster, which here and there have overlapped and filled the grooved outline of the head. The two parallel grooves that cross the lower fragment mark the continuation of guide-lines for the border fillet which delimits the decoration on either side of the figure. Other fragments from these figures, e.g. the raised legs, bear on the reverse side the impression of parts of the surrounding ornament against which they were applied.

The procedure followed can be inferred from these details; first, the wall was coated with plaster, 3-4 cm. thick; on this the main divisions of the decoration were marked out with a chisel or V-shaped gouge, the figures being first drawn in black outline; carving of the ornament next started on the wall-plane, while the areas of high relief were nicked in preparation for fresh plaster to be added; finally the figures in relief were built up with lumps of soft plaster applied by hand. The appearance of the carved surfaces and the soft texture of the plaster itself both suggest that the final modelling was done with a knife.

As regards traditional Syrian elements in the reliefs themselves, the best example of this is the ceiling of the palace entrance, inspired as it clearly is by the vine-trellises, with encircled animals or rustic scenes, which are so common on mosaic floors in Palestine.² We might even imagine our ceiling to be an imitation in stucco of some Syro-Byzantine ceiling done in glass mosaic or fresco.

At the same time the sculptures display many features which are foreign to the Hellenistic tradition of Syria in pre-Islamic times, but spring rather from that undercurrent of oriental feeling which has been discussed by Mr. Avi-Yonah in this *Quarterly*.³ This takes various forms as it reappears at different times and at different points in the lands surrounding the Arabian desert. In his preliminary reports on the contemporary palace at Qaṣr al Ḥair al Gharbi M. Daniel Schlumberger has noted the elements of Hellenistic, Palmyrene, or Iranian origin which have gone to produce the hybrid character of that monument.⁴ The evidence from Kh. al Mafjar is entirely in harmony; and we might add a Nabataean strain to the ingredients, especially in relation to the busts and to the sculp-

¹ Cf. the hind-quarters of the gazelle on Pl. XLII, 2.

² See Avi-Yonah, *Mosaic Pavements in Palestine*, p. 80 (reprinted from *QDAP*, Vols. II and III).

³ 'Oriental Elements in Palestinian Art', *QDAP*, Vol. X, pp. 105 ff.; Vol. XIII, pp. 128 ff.; and the present volume.

⁴ *Syria*, Vol. XX, 1939, pp. 349 ff. The resemblance between the plaster decoration of Qaṣr al Ḥair and Kh. al Mafjar is so close as to suggest to M. Schlumberger that both might be the work of a single team of sculptors.



Fragments of a vine trellis from the Palace entrance
(Scale in dms.)

KHIRBAT AL MAFJAR



Fragments of birds from the Palace entrance
(Scale in dms.)

KHIRBAT AL MAFJAR



Beasts from the Palace entrance
(Scale 25 cms.)

KHIRBAT AL MAFJAR



1. Fragment of groin border and vine trellis from Palace entrance
2. Fragment of vine trellis from domed bath-chamber (scale in dms.)



3-14. Animal heads from Palace entrance (scale in cms.)



Fragments of human figures from Palace entrance
(Scales in cms.)

KHIRBAT AL MAFJAR



1. Empanelled busts from Palace entrance (scale 25 cm.)
 2. Bust from Palace entrance (scale in cms.)
 3, 4. Detached heads from Palace entrance (scale in cms.)
 5. Crown of a domed ceiling, from the baths; detail inset
 6. Bust from vaulted ceiling of Palace entrance (scale in cms.)



1, 2, 4, 5. Fragments of equestrian figures from Palace entrance
3. Bust of a horse from Bath entrance (scale 25 cm.)



6-9. Fragments from pendentives of domed chamber in the baths (scale in dms.)

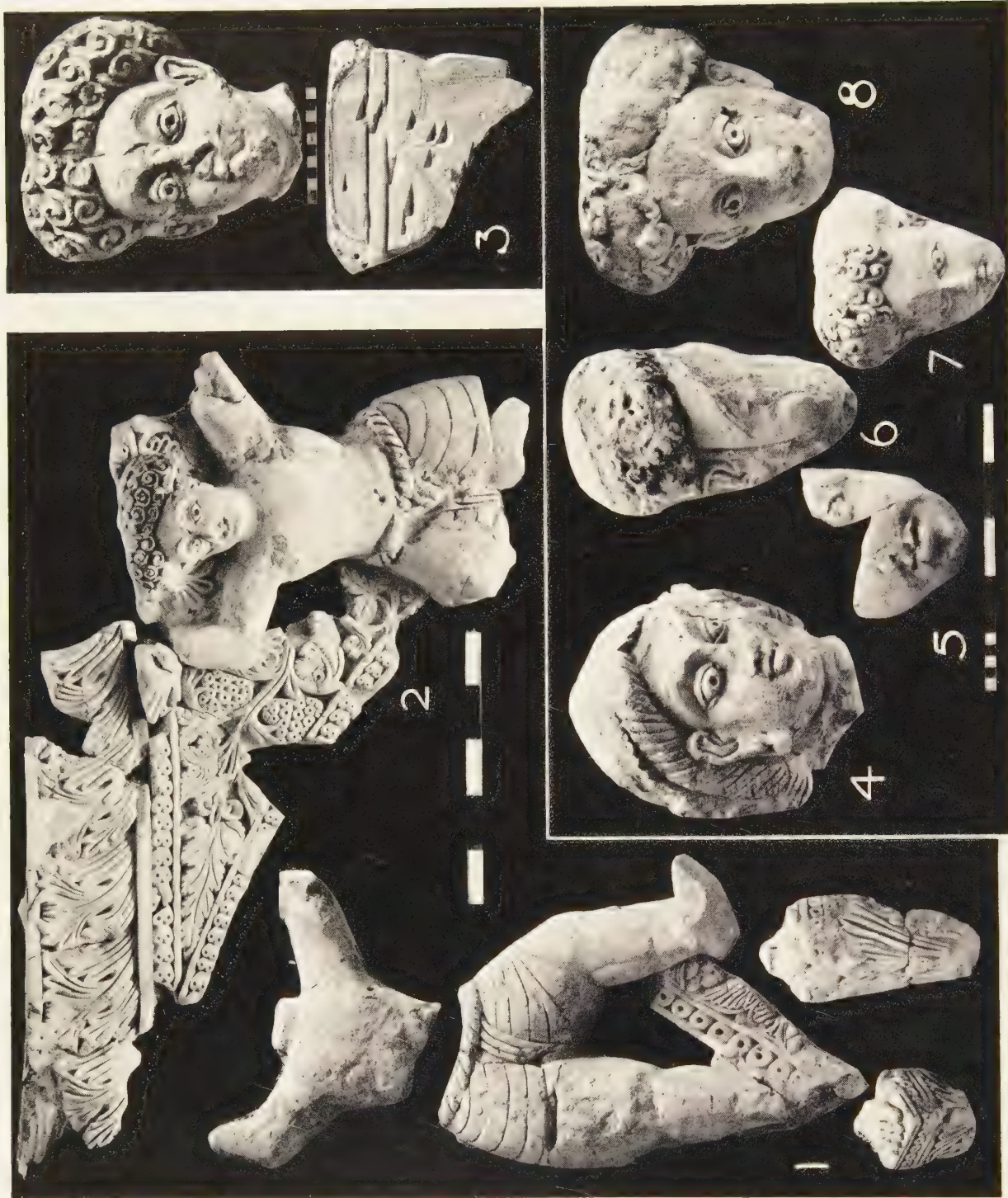


1 12. Animal figures from bath entrance
13. Partridges from the same (scales in dms., except 11 and 12 in cms.)



STATUES FROM ENTRANCE TO BATHS (1-3, 5 and 6) AND PALACE (4)
(Scale in dms.)

KHIRBAT AL MAFJAR



1, 2. Pendentive figures from Bath entrance (scale dms.)
 3, 8. Detached heads from Bath entrance pendentives (scale dms.)
 4-7. Various detached heads (scale 2.5 cm.)



1. Statue from niche in façade of gate-tower to Baths
3, 4. Fragments of lions, probably from the same
2. Detached head from the same
5-7. Fragments of statues from Baths (scales in dms.)

KHIRBAT AL MAFJAR

ture of the human faces.¹ To the Iranian features pointed out by Schlumberger we can now add the winged horses, with their fluttering scarves; the costume of the 'Caliph' and other smaller figures; the pearl-banded birds; the ibexes with their pendants; and a further troupe of dancing-girls.²

The excavation of Kh. al Mafjar is now virtually complete. It has disclosed a typical Umayyad *ḥīra*, or desert lodge, comprehensively equipped with palatial residence, mosque, baths, pavilioned pool, and enclosed gardens. An aqueduct conveyed water to the site from springs some three miles distant. For decorating the buildings the services of sculptors in plaster and stone, of mural painters, glaziers, and mosaicists, working in both glass and stone, were available and liberally employed. To complete the architectural picture there remain to be published a series of fine sculptured niche-heads and other details in stone from the lately excavated baths; fragments of wall-paintings both pictorial and purely decorative from the palace and the baths; three substantial groups of carved plaster with floral and geometrical designs, from walls, soffits, windows, niches, domes, and arches in the palace and baths; an extensive series of mosaic carpets additional to that which is reproduced in this issue; and, lastly, the plans of what is undoubtedly the most sumptuously equipped of Umayyad bathing establishments, together with a substantially complete theoretical reconstruction of its internal and external elevations.

The present report is intended to place on record one class only of the sculptures. It is to be hoped that a comprehensive survey of the varying fields of craftsmanship that were marshalled to embellish the site may some day be attempted; such a survey would undoubtedly disclose an instructive and perhaps a surprising cross-section of the state of Palestinian art one hundred years after the extinction of Byzantine rule.

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¹ See note on p. 106 above. Cf. also in detail the lions on Pl. XLV with the head of a lion from Kh. Tannur (*Bulletin of the American Schools of Oriental Research*, No. 67, Fig. 5 a).

² Comparable, as Schlumberger points out, commenting on his Fig. 25, to the female dancers who grace a number of silver dishes of Sasanian design (*op. cit.*, p. 354).

A MOSAIC CARPET OF Umayyad DATE AT KHIRBAT AL MAFJAR

THE mosaic floor which is illustrated by Pl. XLVI was exposed by excavations at Khirbat al Mafjar during the winter season of 1944-5.¹ It was found in a monumental and luxuriously appointed bath building which lay some 40 m. to the north of the main palace. The baths, which surpass in size, elaboration, and completeness any other Umayyad baths yet identified, were cleared during four seasons of excavation from 1944 to 1948, of which the last was completed a few weeks only before the withdrawal of the mandatory government.² Pending the full report on these excavations, which it is to be hoped may some day become possible, we can do no more at this stage than give a general plan of the whole site as so far excavated (Fig. 1).

The whole of the area marked 'Bath Hall' on the plan was paved with mosaics of a geometrical character, exhibiting a wealth of variety but no great originality in their designs. The floor which is here reproduced lay in the raised apsidal dais, or exedra, that occupied the northern half of a small but richly decorated chamber seen at the extreme north-west corner of the plan. As the mosaic is unique amongst Palestinian floors, both in subject-matter and in artistic perfection, we have thought it worth reproducing in colour.³

Within a simple cable border the design displays a tree⁴ in full leaf and fruit, silhouetted against a creamy-white background. Beneath the tree on the left two gazelles nibble the tips of sprouting saplings; on the right a third crumples beneath the attack of a lion, whose teeth and claws rend its back and flank.

The tree is drawn as a succession of superimposed silhouettes, each plane of colour forming the background to one lighter in tone than itself, thus passing by gradations from the deepest grey or black through shades of grey, blue-green, and green to pale lemon-yellow. The branches form an intricate, balanced, but not symmetrical pattern, to which the fruit, with their touches of white (in two tones, ivory and pale lilac) and yellow and red, give light and contrast.

The animals are drawn with a naturalism and a dramatic sense which recall the earlier mosaics of Antioch and Constantinople, and are clearly inspired by Hellenistic painting.

The whole floor represents a carpet, fringed with tassels; it may well have been copied from some woven prototype. To protect it, and the equally perfect mosaic which covers the rectangular portion of the floor, the walls of the room have been rebuilt in stone and roofed over. Both floors have further been covered with a deep layer of sand sealed by a flooring of bricks.

R. W. HAMILTON

¹ Photographs and a note by the excavator, Mr. D. C. Baramki, appeared in the *Illustrated London News* of 14 July, 1945, pp. 52-53.

² As briefly described in *Palestine Exploration Quarterly*, Jan.-April, 1949, pp. 47-8 and Pl. IV. fig. 2.

³ The drawing from which Pl. XLVI has been made was done in water-colours, to a scale one-fifth of the original, by Mr. Albert Henschel; to his patient skill and meticulous draughtsmanship we are indebted for a painting which is at once as faithful a copy of the original as the medium allows and a work of beauty in itself.

⁴ Citrus or apple; or, less convincingly, perhaps a pomegranate.



KHIRBAT AL MAFJAR

A mosaic pavement from the baths (at X on plan)

BAT AL MAFJAR · SKETCH PLAN

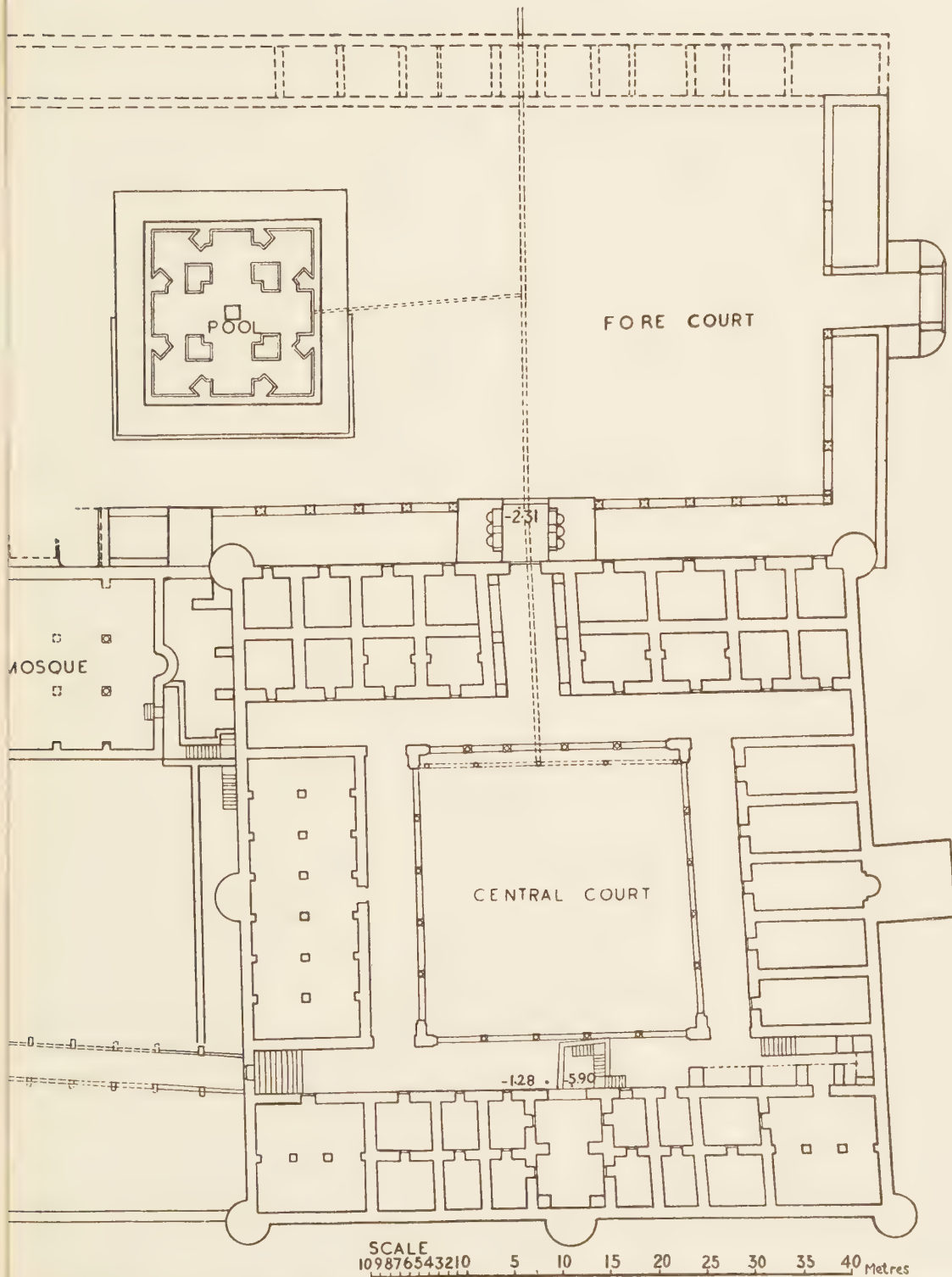
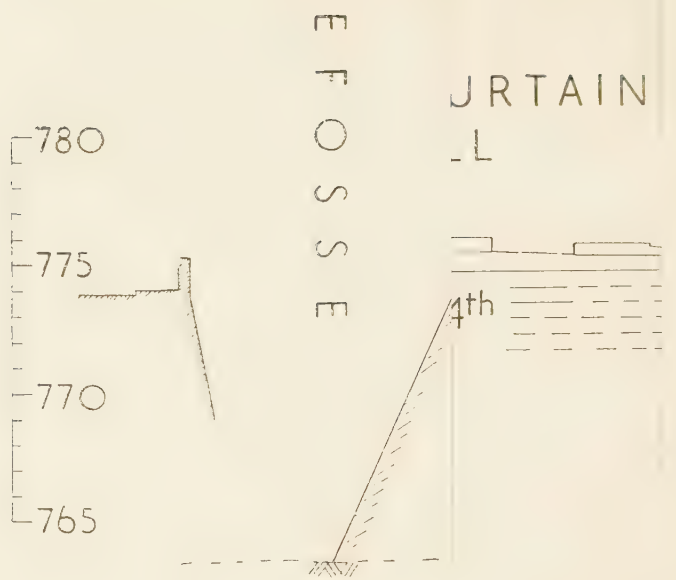
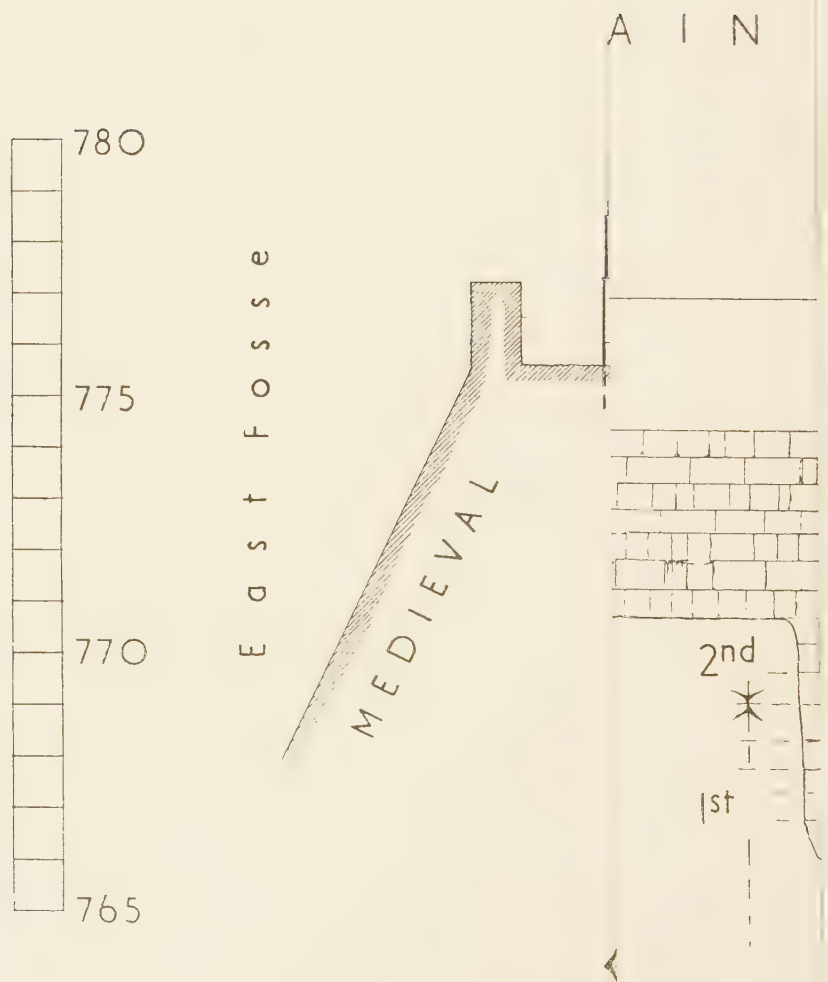


FIG. 1



tion of ancient City



THE CITADEL, JERUSALEM

A summary of work since 1934

IN order to display the principal discovery, the surviving portions of the Jewish city wall as fully as possible, some minor clearances were made during the spring and winter of 1947-8 and the courtyard was finally levelled, the main excavations being left open and accessible, see Pls. XLIX, LV. What follows is intended to sum up the results of the work, supplementing the observations which have been reported from time to time¹ by adding some illustration of stratified material related with the discoveries, and so to attempt an architectural history of the site, concluding with the present building.

The present castle is the counterpart of the Ayyubid citadels of Cairo and Damascus. As it stands it is chiefly Mamluke work of the fourteenth century; but it derives its plan from the previous Crusader castle of the twelfth century, the 'Tower of David', and its raking outer line, sweeping south-westwards from the present city wall at the Jaffa Gate (*Bāb el Khalil*), it owes to the situation of that earlier castle astride the then existing city wall, which here comprised the elbow of the Jewish city wall of 1,200 years earlier, where it turned from west to north (see site plan, Fig. 3, p. 124). Hence, too, the position of the great tower at the north-east (3 on Fig. 2, p. 123), oddly situated on the urban side because it utilizes the surviving base of Herod the Great's tower, Phasaël, which once stood in the Jewish city wall, but has been cut off from it on the east, and then brought within the city by the building of the present wall running north from Jaffa Gate on the west. Commanding as it does the saddle joining the south-west and north-west hills, long the residential zone of the walled city, this site has been the seat of successive governments since Herod: of the Roman army of occupation and apparently of the Romans' successors the Arabs also, of the Crusader kings, and of the Mamluke and Turkish governors after them. It has been fortified at least since Maccabean times, but whether it could have been included within the walls before that, or not, our evidence remains inconclusive. We can point with confidence, however, to the work accomplished by the Hasmonean and Herodian rulers, in itself a notable addition to the few extant Jewish monuments of the period, and a landmark in establishing the topography of the city in Late Jewish or New Testament times.

The various periods of construction and their associated material will be described under the following heads:

- I. *Ancient Jewish*: (a) the city wall and its course, outlining its scheme as a whole and its probable relation to other discoveries on the circuit corresponding to the 'old' or 'first' wall described by Josephus;
- (b) periods of construction (i) Early Hellenistic to Early Hasmonean, p. 126, (ii) Late Hasmonean, p. 135, (iii) Herodian, with erection of the tower Phasaël, p. 140, (iv) end of the Jewish period or Roman? p. 148;

¹ In this *Quarterly*, Vol. V, pp. 127-31; Vol. VI, p. 214; Vol. IX, pp. 207-9; Vol. XIII, pp. 170-1, and in the *Palestine Exploration Quarterly*, 1940, pp. 36-56.

- (c) parallels in the southern sector of the ancient circuit, where the earlier line, previously ascribed to the period of the Monarchy, in fact consists of the same styles as the first three periods in the Citadel, p. 150.
- II. *Intermediate Occupations, Roman, Byzantine, and Islamic:* (a) Roman occupation and extension of the city wall, which was here preserved and first utilized as part of the legionary cantonment, then incorporated in a new circuit extending farther north, p. 152;
- (b) Byzantine and Islamic to Crusader occupation, monastic settlement succeeded probably by an official residence of the Umayyad caliphs, situated within the city wall, the tower Phasaël now known as the 'Tower of David' or 'Mihrab of David', p. 158.
- III. *The Existing Castle and its Crusader Predecessor*, p. 163.
- IV. *Glazed Pottery of the Mamluke and Turkish Periods*, pp. 188-90.

I. *Ancient Jewish*

(a) *The city wall and its course*

At the time of the British occupation the interior of the Citadel was still largely built over, as noted in Part III below (p. 171 and Pl. LXI), the buildings grouped at the south end of the courtyard being at a level some metres higher than those at the north-west and north. After these buildings, already in a ruinous condition, had been pulled down, a marked slope was left, its brow running obliquely across the courtyard from south-west to north-east, interrupted only by an excavation in the central open space at an intermediate level (Fig. 15, facing p. 148). Then, in 1934, as part of a scheme for laying out the courtyard as a garden and place of public resort, this slope was reduced to practically the level at its foot, that of the passage leading underneath the north-west tower. So there came to light the portions of the ancient Jewish city wall, or of the secondary masonry in front of it and parallel with it to which the brow of the slope of debris had conformed, most of the ancient masonry having been buried since the erection of the present castle by the Mamlukes early in the fourteenth century (p. 170). The one portion which rose above the filling and had become visible after the demolition of buildings alongside the north-east tower which it abutted (Pl. XLVIII, 1), had not been recognized for what it was, although it was generally accepted that the solidly built base of the tower was identical with the base of Herod the Great's tower Phasaël, one of the towers which, as Josephus states, Herod erected in the 'old wall' (*Wars of the Jews*, Book V, chap. iv, 3).

That the massive base of the north-east tower (Pls. XLVII, 1; XLVIII, 1) was in fact an insertion in an older line of fortifications is the clearest of our results. Starting from the south-west side of the tower, *AB* on Fig. 2, the line is made up as follows:

- (a) The north curtain *BCD* (Pl. XLIX), divided at *C* into the older part *CD* and the newer part *BC*, which latter abuts the side of the tower *AB* and at *C* breaks courses with *CD*, being fitted into it in steps falling towards *B* (Fig. 1, facing p. 121). It

THE CITADEL, JERUSALEM

emerges towards *DM* at a width of over 5 m. (Pl. LIV, 1). It stands on an older wall of crude construction seen at both *C* and *D* (Pls. L, 3; LII, 2).

- (b) The middle tower *DEF* (Pl. LV, 1), indicated by a straight joint with only a few projecting stones at *D* (Fig. 1 and Pl. LII, 1 and 2) but by substantial portions of the face at *E* (Pl. LIII, 1) and of the other side towards *F* (Pl. LIII, 3 and 4). It was built in front of an older wall *ML* (Pls. LI, 1; LV, 1), of which the adjacent curtain walls are merely a thickening, or a heightening, at *D*, *F*, and beyond (Pl. LIV, 1 and 2). The crude construction of the older wall *ML* is the counterpart of the older wall beneath *CD*.

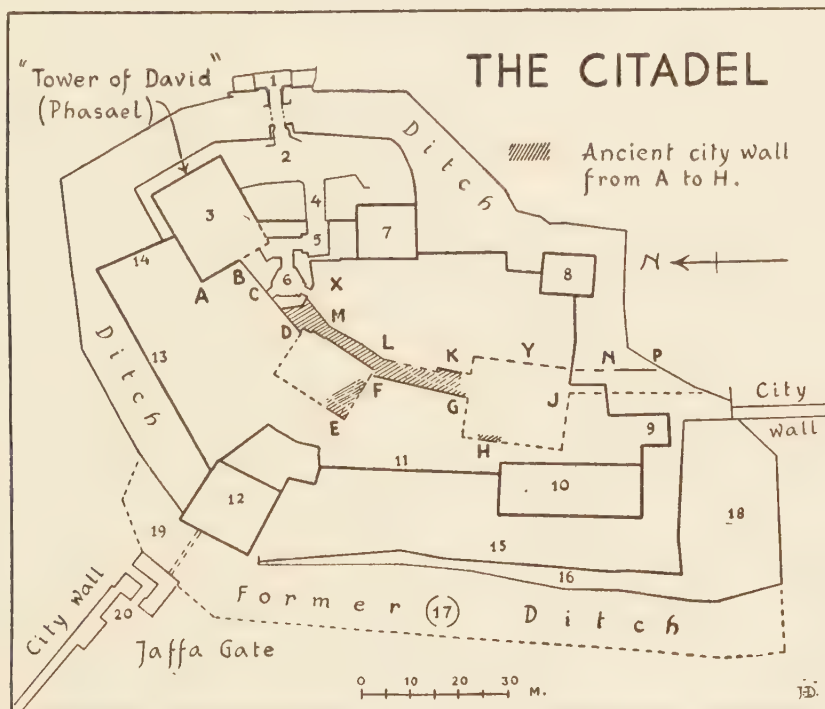


FIG. 2

- (c) The south curtain *FG*, its rear at *L* evidently a repetition of the upper masonry at *M* (Pl. LIV, 2 and 1), but the outer face *FG* a reconstruction utilizing stones like those in the middle tower and in the upper masonry of the north curtain (Pl. LV, 2), while the inner has been refaced from top to bottom at *K* (Pl. LIV, 3).
- (d) The south tower *GHJ* represented only by some courses of large masonry visible at *H* (Pl. LV, 3; Fig. 16, p. 149), which resemble the outer face of the south curtain and support a later building on a slightly different axis; the older wall being so placed and alined as to fit the plan of another salient tower, its north-west angle being closely followed by the two arms of the later wall in all probability (see plan, Fig. 23, after p. 162). Its western arm having been traced southward as far as the line of the south wall of the courtyard at *J*, i.e. between towers (10) and (8), it seems possible that it returned on that line and even that it survives

beneath the near arm of the slight angle in the south wall of the present castle, which may well have been deflected on that account.

- (e) The continuation of the wall along *NP* is inferred from a rock cutting in the fosse, with its scarp at *NP* and level floors to the west, falling in slight steps to the south (Pl. LV, 4), but wide enough to carry the foundations of a wall as thick as the north or south curtains in the courtyard. A few metres to the west, from the foot of the present city wall, the rock drops steeply into the fosse (18).¹ The line *PN* extended to the present wall near *Y* gives the probable line of the back of the south tower passing *Y*, and hence a tower of the same dimensions as the ancient base of the north-east tower (3), and similarly placed across the line of the curtain at *GK*.

Significantly enough, the bend in this system of radiating towers and connecting

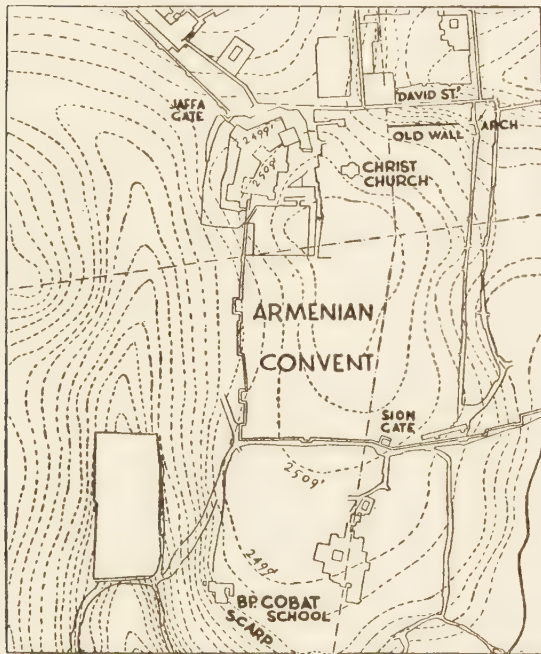


FIG. 3

curtains keeps very close to the rock contour, see Fig. 3, Warren's inferred contour at 2,509 feet or nearly 765 m. above sea-level having been confirmed by our own clearances to rock at *C* and *A* (see Fig. 4, p. 126), and also at the foot of the angle of the glacis north-east of the same tower (for all three, see Fig. 1, facing p. 121). When this fortification was first erected, then, the rock was still close to the surface, or such covering as it had was evenly laid, conforming closely to its contours. Presumably the 2,509-foot and the 2,499-foot rock contours embrace its continuation south of the Citadel, for it is at the lower that the rock comes out at Bishop Gobat School where the rock scarp marks another bend in the ancient city wall, to the south-east.² The direct line thither from the Citadel passes just inside the present city wall and nearly parallel to it, traversing the Armenian grounds (which offer the most scope for future excavation as they are still free of

buildings). To the east of the Citadel the ancient line can hardly have swung back with the 2,509-foot contour; thinking to connect it with the ancient wall discovered forty years ago at the north side of Christ Church compound, (†) Fig. 3, above, which was alined on the south-east corner of the ancient base of the north-east tower and said to be of similar masonry,³ we dug in the fosse at the foot of the glacis south-east of the tower, but found no wall. It seems more likely that it crossed some metres to the north, inclining

¹ Photograph in *Quarterly*, Vol. V, Pl. LXXI.

² See general plan no. 1 with Bliss and Dickie's *Excavations at Jerusalem, 1894-97*.

³ As stated by Mr. Hornstone of the C.M.J., who had the south front of the school building erected upon it; for plan and details, see L.-H. Vincent, in *Revue biblique*, 1910, p. 418.

from the south half of the east side of tower at the same angle as on the west; but any remains of masonry would doubtless have been removed in making the fosse, and in the gap of 3 or 4 m. between the foot of the glacis and the foundations of the counterscarp wall (Fig. 1, facing p. 121), there would be little space to examine the rock surface for evidence of foundations.

However, there can be little doubt that the ancient city wall took this course east of the Citadel, and there is some reason to assume that its masonry may still stand underneath the buildings there; for along that line the houses rise in a distinct terrace above 'David Street' (*Suweiqat 'Allūn*), a terrace in part followed by one of the modern lanes (*Darajāt 'Attiya*, prolonged eastward past Watson House, the former L.J.S. mission house). It leaves the rock contours and is the line of the 'Old wall' on Fig. 3, p. 124, which was found in 1862 (during the building of the mission house by Conrad Schick) and was seen and described by Thomas Lewin.¹ This can hardly be part of the system found in the Citadel; its small towers, of such slight projection, resemble more the towers on the upper of the two superimposed lines traced by Bliss and Dickie south of the city,² and may well be Roman, part of the boundary wall of the legionary camp, to which the round arch to be seen at the end of the lane possibly belonged.³ Evidence of the Roman occupation of this hill has actually been found inside the Citadel (see below, p. 152), supporting Josephus's statement that Titus saved the three large Herodian towers and 'so much of the wall as enclosed the city on the west side . . . in order to afford a camp for such as were to lie in garrison' (*Wars*, Book VII, chap. i, 1). The rest of the city wall was razed to the ground, but it is likely that when the Romans came to enclose their camp they would have adopted the same line on the north, the forward slope of the fold down which 'David Street' runs.⁴

If prolonged eastward in an almost direct line, as is commonly assumed, that north wall would arrive at the western wall of the Haram, that is the western wall of Herod's temple, in line with the series of ancient arches abutting on each other like the arches of a bridge to which 'Wilson's arch' belongs.⁵ Yet, when the main sewer passing under one of the arches was enlarged in 1931, no such wall was encountered.⁶ In fact there are no known remains of a city wall on this line that can be compared with the system that has come to light at the Citadel.

But in the southern section of the ancient city wall as traced by Bliss and Dickie, from

¹ In his book, *The Siege of Jerusalem by Titus*, London, 1863, pp. 215 ff.; followed by the Marquis de Vogüé, *Le Temple de Jérusalem*, Paris, 1864, p. 112; and *Survey of Western Palestine: Jerusalem*, p. 271, 'Ancient Towers on the Modern Sion'. Lewin's drawing is reproduced on p. 137 below, Fig. 8.

² e.g. towers II and V on their general plan, no. 1, *Excavations at Jerusalem*, 1894-97.

³ Lewin, *op. cit.*, p. 219; *Survey of Western Palestine: Jerusalem*, p. 234.

⁴ The inscription of the reign of Trajan built into Zion Gate (*Bāb Nabī Dawūd*) in the present south wall of the city, Vincent and Abel, *Jérusalem Nouvelle*, Vol. II, p. 880 and Fig. 362, is to be attributed to such a cantonment, probably bounded on the line of the present city wall to the south, *ibid.* album, Pl. I.

⁵ This viaduct carries the present *Tariq Bāb as-Silsilah* leading to the 'Gate of the Chain', *Bāb as-Silsilah*. See Sir Charles Warren, *Recovery of Jerusalem*, London, 1871, pp. 76 ff.; *Underground Jerusalem*, London, 1876, p. 368; map in Palestine Exploration Fund *Jerusalem Excavations*, Pl. XXXVI, with *Survey of Western Palestine: Jerusalem*, pp. 195-7, 199-200.

⁶ See the report by R. W. Hamilton, 'Street Levels in the Tyropoeon Valley, II', in *QDAP*, Vol. II, pp. 34 ff.

the English school (Bishop Gobat school) south-west of the present city round to the Pool of Siloam at the south-east,¹ the closest comparison may be made with the various styles appearing in the lower and older of the two superimposed lines. In so far as we can date the corresponding stages of construction to be seen in relation in the ancient city wall in the Citadel, we have a key to the successive phases of construction in the southern sector, and to their date (pp. 150-2).

(b) *Periods of construction in the city wall and their date*

The order of construction as it can be recognized in the towers and curtain walls in the Citadel courtyard is shown in Fig. 1 (i), (facing p. 121), a developed elevation looking partly south-east, partly east (compare the plan for this period, Fig. 23, after p. 162). It

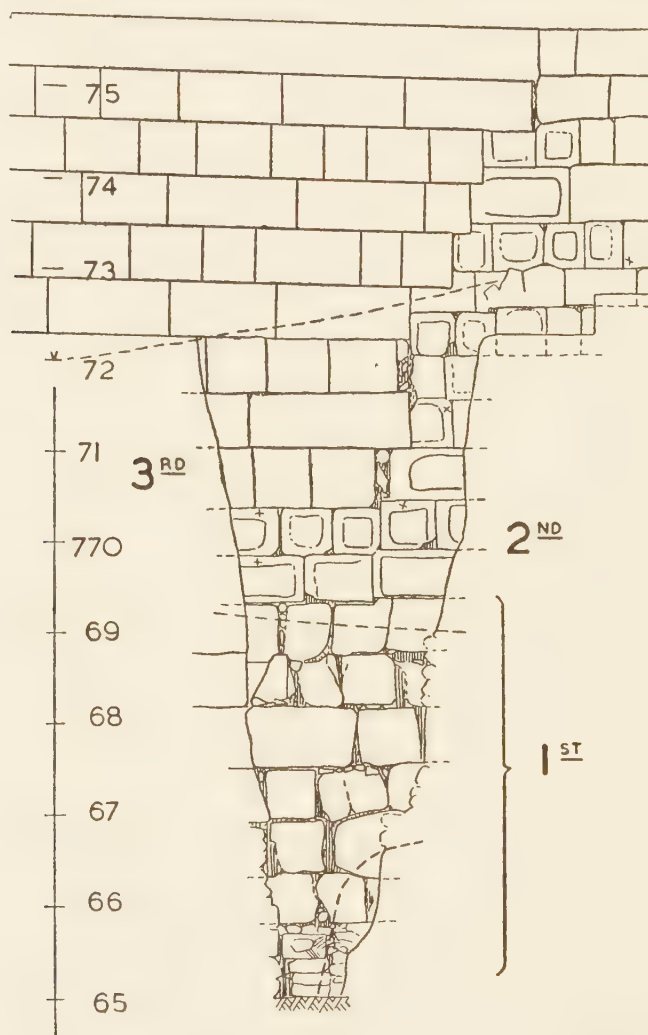


FIG. 4. Sounding C against north ancient curtain showing its three phases, the ground level belonging to the second and third in broken line across the trench.

¹ See their map with *Excavations at Jerusalem, 1894-97*, or the Survey of Palestine, *Map of the Old City*, and *PEFQSt.*, July 1929, Plate facing p. 150.

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is deduced from actual succession in the case of the first three phases: the second build resting on top of the first at either end of the north curtain and contrasting in style; the third butting against the second in such a way as to prove that it is an addition, but of the same build as the adjacent base of the tower Phasaël, as the essential similarity of the stonework shows in contrast with the second. By comparison of the stonework again, the middle tower must be of the second build, or at least no later than the upper

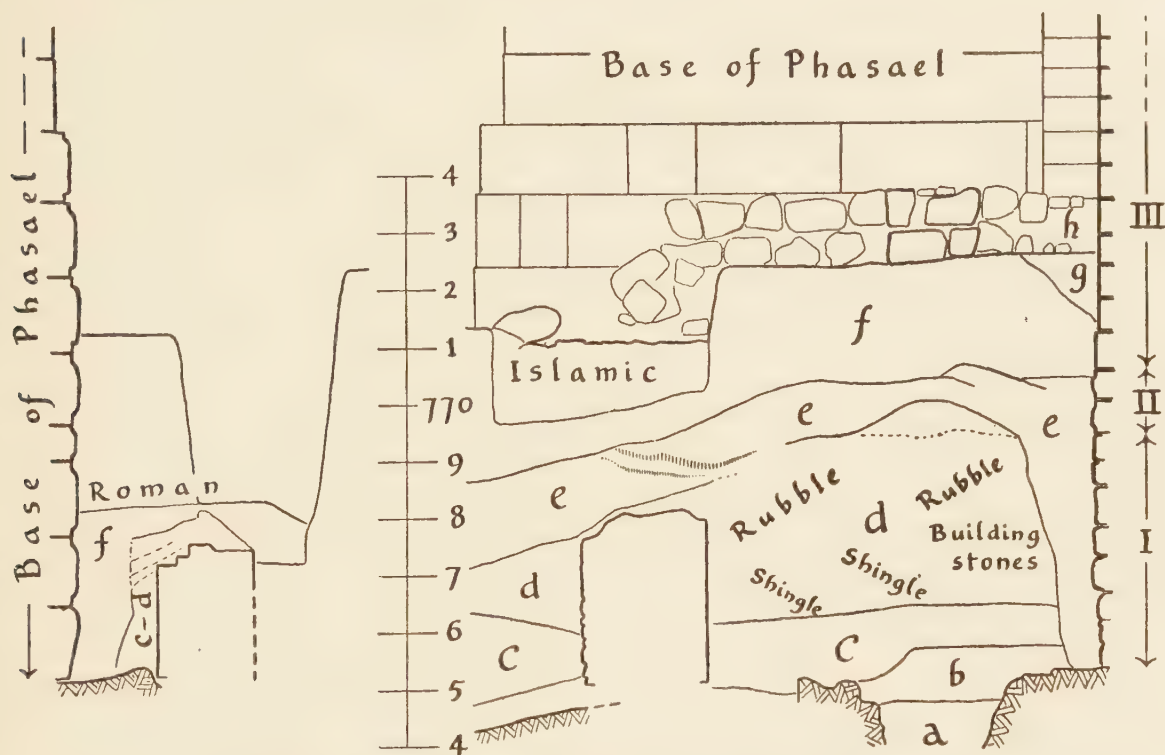


FIG. 5. (i) Section against base of Phasaël (at A) looking south-west. (ii) Section against north ancient curtain (at C) looking north-east.

courses of the adjacent north curtain which butt against it. The wall at the back, to which it was merely applied, must be older and indeed much resembles the first build at the foot of the north curtain. Finally, the south curtain and the presumed south tower resemble one another in the re-use of stones from the second and third builds, and so constitute a fourth.

First period of construction: Early Hellenistic to Early Hasmonean. Only in the deep soundings made at the west end of the north curtain (at D) and towards its east end (at C) was this first build seen to underlie the second, and in neither case was more than a narrow vertical strip of the face exposed, only a stone or two wide (Fig. 1 (ii); Pls. L, 3, LII, 2). Yet, so far as can be seen, it looks like the same work. In contrast to the drafted stonework of the second build, it consists of roughly squared blocks, rock-faced or bearing the circular, fanwise strokes of the quarryman's pick, the tool used for hewing grooves between blocks in the quarry face; but though loosely joined at the sides, the

stones are well bedded, hardly less than the height of the course and sometimes nearly twice that, in header fashion, and they are laid dry and close. All are of the same kind of soft chalky limestone.

However, not all the masonry appearing in the eastern sounding *C* at this level, as shown in Fig. 4 and Pl. L, 3, can belong to the earliest construction there, but only the stones emerging at the right, or south-west side, for it is only on this side that uninterrupted level strata meet the stones of the lowest courses; on the opposite, or north-east, side the corresponding strata are interrupted by a foundation cutting, which starts from the foot of the second build and goes down to the rock; see the section, Fig. 5 at right, p. 127. Hence, in Fig. 4, the stones on the left, though similar, must have been put in as foundations for the second build, while those at the right edge at least must belong to a wall originally free-standing, built at a time when the rock was practically clear. The junction was perhaps at the open vertical joints where the masonry seems to have parted, the newer work on the left dragging at the older on the right and cracking the ends of some of the stones. Starting from the vertical straight joint in the footings (up to the bossed stone with axed margin), it may be traced through five courses, shifting to the right and reaching the right-hand side of the trench at the fifth, so that at the sixth it presumably falls outside.¹ When first exposed the left-hand stones looked like new, their tooling quite fresh in contrast to the weathered surface of the stones on the right, on which the tooling hardly showed at all (either here, Pl. L, 3, or in the other sounding, Pl. LII, 2). Taking away the newer work from the left, we have the broken end of the original wall rising in steps from left to right, much as does the masonry of the second build above, at its junction with the third.

That this was the case the shape of the foundation cutting went to prove. Starting from the level of the second build (as projected in broken line on the elevation, Fig. 4), we could trace its edge converging upon the wall south-westwards as if it would meet the wall not far outside our sounding, and three or four courses down we intersected it where it met the wall just within that side of the sounding. Then, on clearing out the loose contents, we saw that the rest of its trough sloped steeply down to the rock towards the north-east (similarly projected in Fig. 4, cf. Pl. L, 3, where the rod rests in what remained of the trough after level clearance had reached the lowest large course). At such a slope the cutting would have served to expose the broken end of an earlier wall rising in steps, nor indeed would it have been cut unless, from here westwards, the wall still stood up to the then ground-level. Hence it seems that the remaining part of the original wall comprised fully six courses, not merely the three immediately above the footings which were clearly anterior to the western strata not intersected by the cutting.

As many as six free-standing courses undoubtedly existed at the other end of the curtain farther west (at *D*, Fig. 1 (ii), facing p. 121). Here, from the second build downwards, beginning at the same level as in the eastern sounding, the masonry ends nearly straight and in line with the adjacent side of the middle tower, as if cut back to make room for the tower, which is of the second build. Thus in Pl. LII, 2, where four courses are seen to

¹ As was first recognized by the Rev. Père L.-H. Vincent, whom I wish to thank for much help and advice.

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the left of the straight joint opposite the rod, the lower two stop short as if the next stone has been removed in both cases, and the upper two seem to have been cut away on the slant so as to make way for the bossed stones of the tower. On slicing at the side of the cavity left by the demolition of this side of the tower, we could find no sign of any foundation cutting to break the even stratification seen against the top four courses of

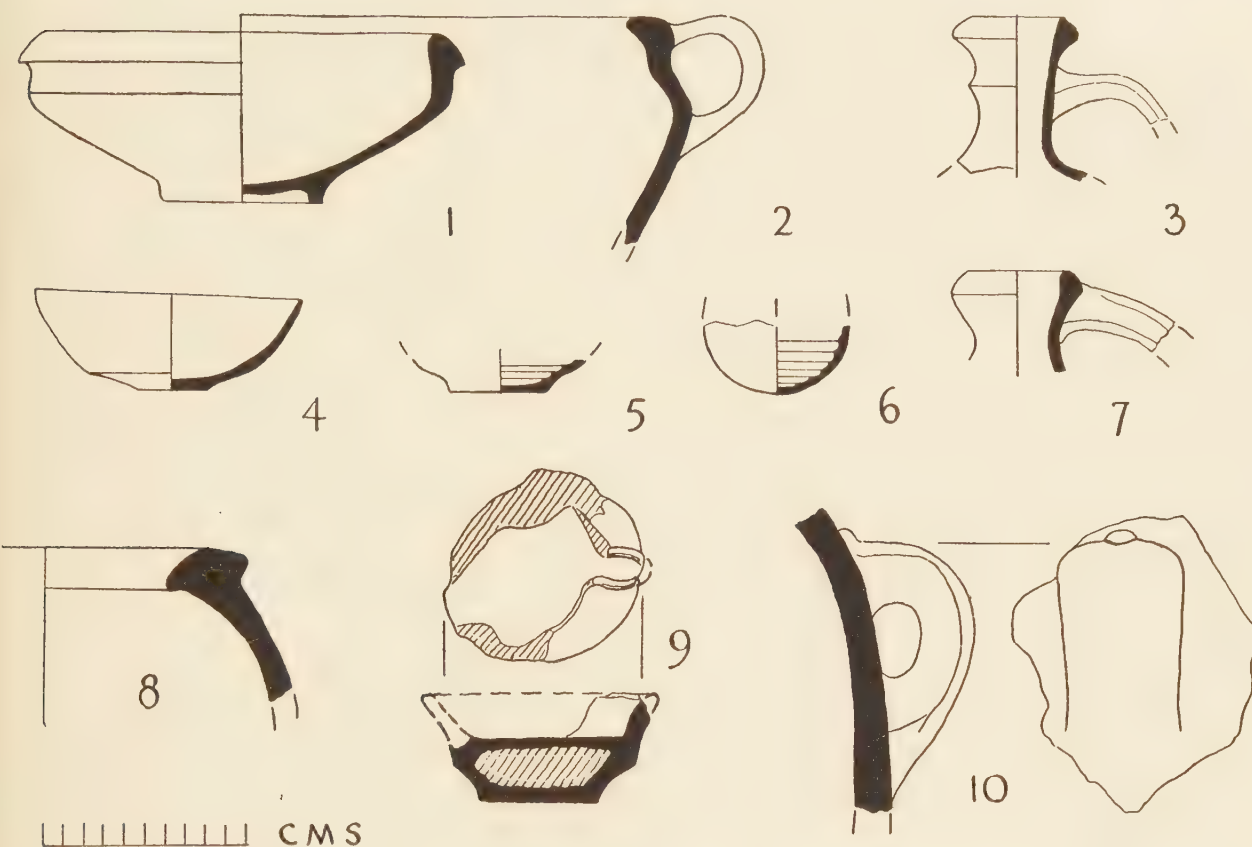


FIG. 6. Pottery types from sounding C against north ancient curtain and from east fosse, lower levels.

the older work, the most we could reach; yet the mainly reddish soil of these strata corresponds with what exists opposite those courses in the eastern sounding where the strata are broken by the sloping cutting. Taking the two sections together, we conclude that all this accumulation, whether directly against the older build or opposite it, must be posterior to it.

A sample of its contents was obtained in the eastern sounding by excluding a strip along the wall wide enough to contain the foundation cutting, so avoiding intermixture with the contents of the cutting; and similarly with the cross-wall to the north, see Fig. 5, p. 127. Both (*b*) and (*c*) meet the lowest courses of the wall on the west side below the bottom of the cutting, and are therefore later than the first construction; but (*a*), the filling of a rock pocket below foundation level, cannot be related with the wall, and is probably antecedent.

From (a) came red-burnished ware typical of the late Hebrew Monarchy (seventh to sixth centuries B.C.): Fig. 6, 1, is a typical bowl restored from fragments; 5, 6, are bottle fragments with matt red slip; 7, a bottle mouth of warm red ware with fine white grits. (Small deposits of similar ware, unmixed with later kinds, were found in rock pockets elsewhere, notably in the fosse at the south-east of the north-east tower, with a jar handle stamped with the scarab and (*l-melekh*) *M(a)msh(a)t* in Hebrew, Pl. LVII, 1, and also at the bottom of the south fosse where the rock had not been fully cleared. Fig. 6, 2-3, are examples of red-burnished ware; 8-10, of rough red, dark red, and buff ware from the east fosse.) Such red-burnished ware, especially the bowl, Fig. 6, 1, persisted into (b) and higher layers, but was mixed with types of form and texture approaching those of the undoubtedly Hellenistic or Late Jewish layers at (d) and above, viz. the jar and thin cooking pot, nos. 1 and 2 on Fig. 14, p. 145.

That (c) also must be Hellenistic is proved by the deposit of bronze arrow-heads, typically Greek (Fig. 7, 2-4), which occurred together with a number of iron heads

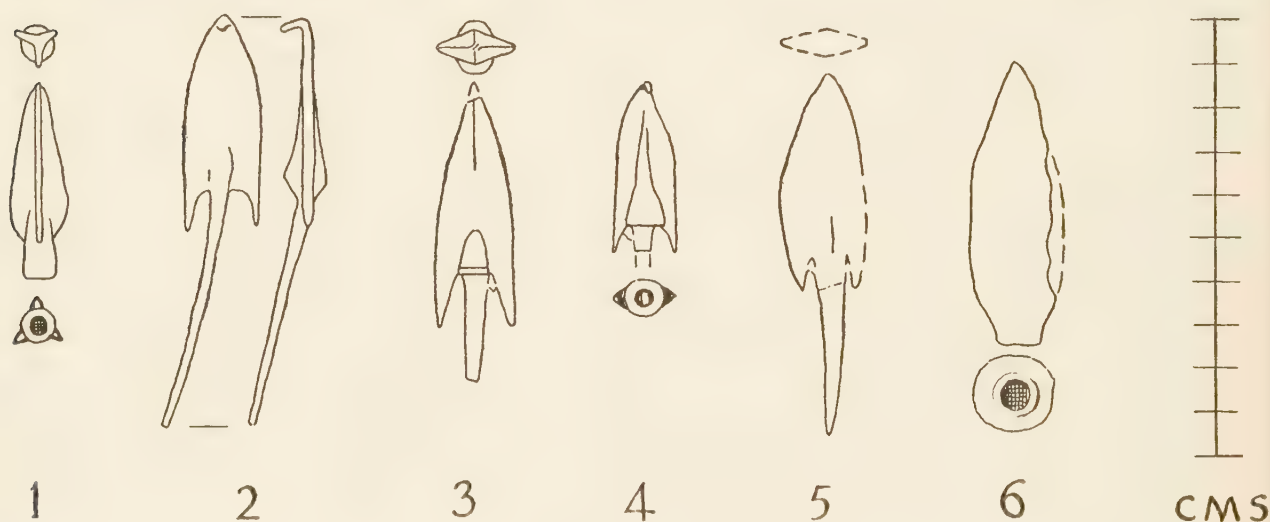


FIG. 7.

(Fig. 7, 5-6), all on a gentle slope broken only by the cross-wall; they had been shot and had fallen, as the bent points of the slender bronze heads¹ proves (Fig. 7, 1, actually came from the higher stratum (e), but may well have originated as low as (c)). In the same deposit were fragments of stone ballista balls, which, to judge from complete specimens found in the filling of the cutting (e) and elsewhere, would have weighed from 1.2 to 3.7 kg., the equivalent of 2.75 to 8.5 minae. Since the cross-wall interrupts this even litter of battle relics, it can only have been put up after the battle had taken place; and this was confirmed by its evident insertion in similar deposits to the north of the great tower, as was shown by the double section exposed in a trench dug at right angles to it, at A on plan, Fig. 23; section in Fig. 5 at left (p. 127), where (c-d) contained

¹ Cf. the metal heads from Olynthus, types D and F, in *Excavations at Olynthus*, Part X (Baltimore, 1941), pp. 383, 397 with Pls. CXXI, CXXV-VI, and the arrow-heads from 'Atlit, *QDAP*, Vol. II, pp. 5-6, Fig. 14, especially (c).

whole or broken ballista balls and an iron socket. But the original build at the bottom of the curtain to the south must precede both (*b*) and (*c*) of Fig. 5 (p. 127); and unless its foot was kept free from debris for a much longer period than is likely in an oriental country, it can hardly be doubted that it was erected in Hellenistic times, and no earlier.

From the composition of the next deposit, (*d*), Fig. 5, it seems that the erection of the cross-wall was due to the breaching of the earliest curtain wall to the south-east. In front of it, from the edge of the later cutting (*e*) northwards, there is a heap of tumbled building stones of much the same kind, size, and dressing as those seen in position in the lowest courses, both here, Pl. L, 2 and 3, and at the western sounding, Pl. LII, 2. This must be the debris from the upper courses or of the ruined part to the east. To the north it verges on shingle of small rounded chips of similar chalky stone, which slopes against the cross-wall as if subsequent to it. Yet, by comparison with that part of the cross-wall north of the great tower (at *A*) where similar though firmer layers seem to have preceded its building (Fig. 5, left), it is conceivable that the shingle of (*d*) here preceded the cross-wall likewise; being loose, it would tend to slip down after being cut by the builders and so would leave no clear section of such a cutting. It was in this shingle that the first two coins occurred, both of bronze and much worn but evidently Seleucid types and probably of the first, second, or third quarter of the second century B.C., as the serrated or 'mill' edge of one would go to show, apart from the rather faint impressions. Allowing for their worn condition, these coins would indicate that the breaching of the original wall, and the erection of the cross wall in front of the breach and across it, should be dated not much earlier than the middle of the second century B.C. and possibly as late as the last quarter. Throughout these deposits and the supervening rubble the sherds were so scanty and so much broken up that they give little indication other than that they appear to represent the kind of pottery found below and above, including the thin cooking pot ware which had been comparatively rare in (*b*) and (*c*) but was to become very frequent in (*e*) and (*f*), see below, pp. 135, 144. If the destruction of the earliest wall took place late in the second century B.C., its erection cannot have been very much earlier.

To the same period presumably belongs the wall of similar construction which forms the back of the middle tower (Fig. 1 (ii) facing p. 121; cf. Pls. LI, 1 and 3 and LV, 1). The tower itself is to be attributed to the second build, as will be seen (p. 136). But the wall behind it is of independent construction, extending beyond the tower to the south-west and curving slightly to the south as it disappears into the south curtain (see Pl. LV, 1 and plan, Fig. 23, after p. 162); unlike the later rectilinear system of tower and curtain in front, it conforms directly to the natural curve of the rock contour. Any connexion it may have had with the first build at the foot of the north curtain has been broken by the erection of the tower, the north side of which is built across the line which would have connected its back wall with the front of the curtain. The long straight joint between the tower and curtain seen in Pl. LII, 1 and 2, could not be traced to its full depth but it certainly descends to within 2 m. of the average rock surface (compare Fig. 1 (ii)), and it penetrates at least a metre. The rough masonry to be seen to the right of the ashlar facing may continue behind it and may even continue behind the straight

joint; only by pulling down the upper courses could this be ascertained. But it seems more likely that the stones wedged behind the ashlar are contemporary with it, since they correspond with the ashlar courses rather than with those of the buttress to the right, separated by another straight joint. At the back the rough masonry of the earlier wall extends beyond the obtuse angle (*M* on plan, Fig. 23, after p. 162) and disappears beneath the later build seen in Pl. LIV, 1. Hence the buttress or pilaster in front can hardly be the side of a former gateway, and it is hard to tell how it can have been connected with the similar first build of the curtain (at *D* on plan) unless at an elbow that was removed when the middle tower was added.

From the buttress southwards (to the right on Fig. 1, ii, and Pl. LI, 1) for several metres the face of the wall much resembles the first build at the foot of the curtain, not only in the size and laying of the blocks, headers predominating, but also in the kind and dressing of the stone. Much of it is of the same chalky limestone, locally known as *qa'qūlī*; some, however, is of the slightly harder kind, white or red-veined, known as *malikī*, and on this the marks of a straight-edged tool, an axe, adze, or chisel, were apparent besides the curved strokes of the quarry pick. None of the latter stone was to be seen *in situ* in the first six courses of the curtain, among the few blocks which could be seen, but there were examples of both the kind of stone and the straight tooling among fallen building stones lying heaped in front of those courses and the breach at *C*, damaged blocks of like dimensions that may well have come from the breach in the curtain or from its upper courses (see above, p. 131 on deposit (*d*), Fig. 5). Hence in the squared masonry at the back of the middle tower we conceivably have a larger sample of the style of construction which was once to be seen throughout the original curtain from here northwards, here preserved to a greater height because of the erection of the later tower in front of it.

Yet not all of the back wall is of this style. A few metres to the south or right of the buttress (Fig. 1, ii, and Pl. LI, 1) the squared work rests upon a much rougher construction, made up of untrimmed boulders for the most part, with only a few roughly squared stones like those in the other though rarely so large. Like that it seems to have been laid dry, but in less even courses and with more small stones to wedge the joints. To expose this work a pit was made in the heap of broken building stones and rubble in front—debris of the ancient tower left by the builders of the present castle—and beneath this several courses of the heavy blocking of the ancient tower were penetrated before the sounding finally became too narrow. Pl. LI, 3 and 4 show this sounding as we began to penetrate the blocking. Stones of this and two more courses were removed without reaching the bottom of the back wall but from the fact that the bottom of the batter was reached (about half-way down the rod in the photograph, Pl. LI, 2), it seems that the rest may have been foundations. Any stratified deposits at this level had been removed by the builders of the tower, nor did it seem likely that any would be found in relation with the wall lower down, for we were able to probe masonry within a metre or two of the average rock surface on the contour.

As for the junction between the boulder work and the superimposed squared masonry stepping down to the north-east, it was not traced further in that direction. At first sight

it suggests that the broken end of a very old line was later built up in coursed and squared stonework. But this is not necessarily the case, for the boulder work was itself built section by section, as is proved by a stepped junction partly seen in Pl. LI, 3, just to the right of the staff: here the roughly squared stones on the right step down to the left and also project uniformly owing to a slight change in the direction of the face. Is then the squared masonry simply another stage in the same build, the difference being in the use of squared instead of unhewn stone? While so little of it is visible, this must remain a matter for speculation.

Again, since the builders of the tower must have removed the deposits in front of this wall face throughout its length, we have no direct means of dating it in either form. Only at the back (between *M* and *L*, Fig. 23, after p. 162) is it still possible that it might be related with stratified deposits or successive building layers, a sounding we have been unable to attempt. But it should be noted that at the front of the tower some 12 m. to the north-west, where the rock is lower and the deposits remain undisturbed from the foundations of the tower downwards, Hellenistic-looking sherds were found right down to the rock, at (*a*) of Fig. 9, p. 138. That is to say, they occur well below the foundation level of the primitive-looking part of the back wall, which is nearly level with that of the tower. Allowing for the rise in the rock surface then, it seems quite possible that even this part of the back wall may have been founded in such deposits; indeed its foot bore traces of the same kind of red field earth as made up the deep deposit anterior to the front of the tower, in which Hellenistic sherds were preponderant.

To regard the primitive-looking boulder work as Hellenistic, as well as the squared masonry, would not be inconsistent with what is now known of Maccabean or Seleucid construction in the boulder-strewn hills of Judea. The excavations carried out by Dr. O. R. Sellers at Khirbat et-Tubeiqa, a hill site off the Jerusalem-Hebron road near Hebron, have well demonstrated¹ that this must be the site of the Beth-Zur or Bethsura of 1 and 2 Maccabees and Josephus, which is usually mentioned in connexion with Maccabean efforts to recover and fortify Jerusalem.² There, not only in the entirely Hellenistic fort but also in the Maccabean repairs to the older city wall, and notably in a large offset or buttress, the same indifferent rubble construction appears as in the most primitive work behind the middle tower at the Citadel.³ The walls of the fort were built and restored more than once in this fashion, which had been the usual fashion in the hill country in the Early Iron Age and may well have persisted here until the Hasmonean rulers acquired the resources to build better.

Nor is the rough-fitting square masonry adjacent (Pl. LI, 1, centre) and at the foot of the curtain (Pl. L, 3) without parallel in Hellenistic times. Thus at Samaria in the case

¹ O. R. Sellers, *The Citadel of Beth-Zur* (Philadelphia, 1933).

² 1 Macc. IV, 17-62, X, 10-14, XI, 65-6, XIV, 7; Josephus, *Antiquities*, XII, vii, 5 and 7, XII, ix, 4, XIII, ii, 1.

³ Sellers, *op. cit.*, Pls. II-IV and Figs. 14, 16, 18. Likewise at Gezer in the castle ascribed to this period, where the gateway alone is of drafted stone, see R. A. S. Macalister, *The Excavation of Gezer*, Vol. I, pp. 209 ff., especially p. 222. At Samaria large boulders actually surmount courses of roughly squared stone in a late repair to the city wall, *PEFQSt.*, July 1931, p. 140 and Pl. II; kindly pointing this out to me, Mr. J. W. Crowfoot adds that it may well be Hellenistic in view of Beth-Zur.

of the 'Greek' fort wall around the summit, an equally massive line, the builders were content to utilize the available Israelite material in this fashion, packing up the damaged blocks with small stones; previously dated to the sixth century B.C., it is now known to be work of the Hellenistic period, as late as the second century.¹ On the site of ancient Jerusalem itself there are closer parallels, in some of the early structures on the northern part of Ophel excavated by the Palestine Exploration Fund: on the western slope in particular, beside the gateway, there was a large cistern of very similar style and certainly of Hellenistic date, probably of the end of the second or of the first century.² Such it seems was the native work of the period, in contrast for example to the better-built Seleucid wall which stretched southward from the cistern and gateway.³ Yet our walls resemble the latter in their many headers, presumably because like that wall they were defensive walls, for the use of headers in the facing of walls and towers was a feature of the finest Hellenistic fortification, as seen in the round towers which were added to the city wall of Samaria soon after the Macedonian occupation (Pl. LI, 2).⁴ Those dated examples go to confirm the inference from the stratification at the foot of the curtain (pp. 128-9) that both this and the roughly squared work behind the later middle tower originated, not as foundations, but as free-standing work, erected as late as Hellenistic times.

If, then, the first build be of Hellenistic date, whether in unhewn or squared stonework, who built it? and as part of a city wall or as the wall of an independent fort that may later have been incorporated in the city wall? Since its extent is so limited, even if we regard unhewn and squared work as stages in the same piece of fortification, it must remain doubtful whether it began as part of the city wall. The view that it did receives some support from the statement of Xenophon the Topographer, in a work written before the first century B.C., that the walls of Jerusalem were built partly of squared (ἀπὸ λίθου ξέστοῦ) and partly of unhewn stone (ἀπὸ χάλικος).⁵

However, taking the squared masonry as typical of the first build, both at the bottom of the north curtain (CD, Fig. 1 (ii), facing p. 121) and at the back of the middle tower (at rear of DF), it seems fairly clear from the stratification remaining against the curtain that it underwent some destruction late in the second century B.C. (above, p. 131). Possible occasions are the demolition of the city wall by Apollonius in 168 B.C. and by Antiochus VII in 134 B.C., both of which are mentioned by Josephus.⁶ Other ancient authorities emphasize that the first affected the whole circuit.⁷ The second was less drastic and may well have been a partial 'slighting' of the walls by breaching important

¹ J. W. Crowfoot, K. M. Kenyon, E. L. Sukenik, *The Buildings at Samaria*, London, 1942, pp. 30, 120.

² *PEFQSt.*, Jan. 1929, p. 12, Pl. I; April 1929, pp. 75-6; July 1929, pp. 161 ff., Pls. IV-VI; also p. 160 and plan facing p. 150, with *Annual* No. 4 (1923-5), pp. 54 ff., 69 ff. on the eastern wall; *ibid.* No. 5 (1927), pp. 14-20 on the western gateway, with Frontispiece showing upper courses.

³ *PEFQSt.*, Jan. 1929, pp. 13-14, Pl. II; April 1929, p. 76; July 1929, pp. 156-9, 164-6, Pl. III.

⁴ J. W. Crowfoot, K. M. Kenyon, E. L. Sukenik, *op. cit.*, pp. 24-7.

⁵ Quoted by Reinach, *Textes relatifs au Judaïsme*, p. 54. I owe this interesting reference to Mr. Aviyonah.

⁶ *Antiquities*, XII, v, 4; XIII, viii, 3.

⁷ G. Adam Smith, *Jerusalem*, Vol. II, p. 459, n. 3.

points, since Antiochus 'the Pious' had shown no great harshness towards John Hyrcanus and had insisted on demolition only after the Jews had refused to accept a Syrian garrison. That would better account for the partial breach made at such an important point as the site on the saddle to be occupied later by Herod's great tower, now the north-east tower. If so, who had built the wall which was breached? In Ecclesiasticus, L, 1-4, the high priest Simon the Just, either the first Simon, son of Onias, who ruled about the beginning of the third century, or the second towards its end,¹ is praised for his work in fortifying the temple and 'the city against besieging', but the context implies that he worked chiefly in and around the temple. Next, in I Maccabees and the *Antiquities* of Josephus, the brothers Judas, Jonathan, and Simon are all mentioned as fortifying or restoring the city wall.² Jonathan seems to have done most, having express authority from Demetrius II, Nicator, to charge the cost of reconstruction to the royal revenue: thus 'Jonathan settled himself in Jerusalem, and began to build and repair the city. And he commanded the workmen to build the walls and the mount Sion round about with square stones for fortification; and they did so.'³ It seems most likely then that it is Jonathan to whom our first build in square masonry is due (c. 153-143 B.C.), though perhaps as a restoration of an earlier line of boulder work erected by one of his predecessors, possibly Judas some years before or even Simon the Just two centuries earlier. But that this was the work of Judas seems more likely, since it is doubtful whether any of the high priest Simon's work would have survived the earlier destruction by Apollonius under Antiochus V, even if it had extended so far from the temple. At all events the view that it was Antiochus VII who had the wall breached in the time of Jonathan's nephew, John Hyrcanus (in 134 B.C.), gains support from the evidence we have next to consider for the second build.

Second period of construction: late Hasmonean. From the east sounding against the north curtain, C, Figs. 4 and 5, pp. 126, 127, it was clear that the second build, or reconstruction of the original wall must have taken place after the accumulation of (*d*), for the edge of the foundation cutting could be traced right across at its summit, rising to a slight lip due to a bank of spoil removed from the cutting and left at its edge. But the filling in of the cutting and the deposits to the north (*e-e-e*) must be contemporary or subsequent to the reconstruction. Rising in a slope which cuts across the strata and is therefore artificial, these (*e*) deposits in fact reached and covered the top of those two courses of the second build which are all that remain from the middle of the sounding eastwards, see Pl. L, 2. To the west, where from the west side of this sounding along to the west end of the curtain this build stands several courses higher (Fig. 1 (ii) facing p. 121 and Pl. XLIX, 1), those deposits rise no higher than the second course. In the sections seen in both soundings they are predominantly of reddish soil, in contrast with the mixed composition of the next main deposit (*f*) which later accumulated against the second build. In sherd content they were no less uniform, with a preponderance of those pottery types which are illustrated from the subsequent deposit (*f*) in Fig. 14, p. 145. The

¹ *Ibid.* p. 386.

² I Macc. X, 10, XII, 36, XIII, 10; Josephus, *Antiq.* XII, vii, 7, XIII, v, 11, XIII, vi, 4.

³ I Macc. X, 10-11, 44-5.

cooking pot, 2 *a*, was clearly contemporary for it was repeatedly found upright, more or less intact and evidently placed intentionally, not only on the eventual surface of (*e*), but in one instance in the filling of the cutting where an almost unbroken, used specimen lay wedged among the loose rubble. Pre-Hellenistic types occurred also, and actually preponderated in the bank which formed the lip of the foundation cutting, but probably derived from the low levels which the cutting intersected, at (*b*). There were several Greek coins of Seleucid type, one of which can be identified as the Jerusalem issue of Antiochus VII (? 135–134 B.C.), and also a single Jewish coin of the type of John Hyrcanus. This last gives a *terminus post quem* for the building of the curtain that proves to fit the similar evidence for dating the tower which adjoined it on the south, the middle tower.

The adjacent middle tower (see plan, Fig. 23, after p. 162) should be considered as part of the same build. Its remaining parts certainly represent a single build in themselves. Where it is least ruined, along either arm of the south-west angle, Pl. LV, 1, a comparison of the face at *E*, Pl. LIII, 1, and Fig. 9, p. 138, and of the south side at *F*, Pl. LIII, 4, shows the same kind of stonework with courses at corresponding levels. The corner itself was not exposed, but those two portions are actually connected by the remaining infilling of large, roughly trimmed stones, which reaches the top surviving course in either case, so suggesting that the tower was built solid up to this height at least. The rest of the face has disappeared, and the north return also except for the inner east end of the north wall. This is preserved where it penetrates the back wall, on the right of the long straight joint seen in Pl. LII, 1 and 2, and its direction is given by one or two projecting stones of several of the lower courses, see Pl. LII, 2. These tend to be larger than the lower courses at the south-west, but the upper courses correspond in height and level with those remaining at the south-west (as shown in Fig. 1 (i), facing p. 121), while the lower courses at the south-west correspond with the blocking exposed in the sounding against the back wall east of that (at *G*, see also Fig. 1 (ii), p. 121).

The straight joint seen in Pl. LII, 1, 2, and Fig. 1 (ii), p. 121 was formed by fitting the stones of the curtain to the bossed stones of the tower wall for the most part; so much may be seen at the top where two bossed stones exist, penetrating a metre, and at other joints below that as far down as the bottom of the recess; still lower the stones of the first build were cut away or taken out to make way for the side of the tower. The ashlar on the right of the straight joint, beginning at the second course above the bottom of the recess, is presumably the reveal of a doorway opening in the side of the tower, the recess in the curtain having been built flush with it. Such was the proper position for an entrance, close to the curtain and on the enemy's left, obliging him to expose his right side in attack.¹ Its form may be imagined from the doorway improperly placed on the left side of one of the towers in the 'old city wall' discovered to the east of the Citadel in 1863, see Fig. 8.² At the other side of the tower there would not have been an entrance, and no attempt was made to bond it into the older wall of the first build; as much may be inferred from the fact that the older wall still stands as high as any of the surviving

¹ As Vitruvius states, Book I, Chap. X, 11, ed. Choisy, Paris, 1899, tome III, p. 38.

² From Lewin's *Siege of Jerusalem by Titus* (see p. 125), p. 217, cf. p. 125 above, n. 1.

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masonry of the tower on this side, although the junction itself has been interrupted by secondary building so far as could be seen (see Pl. LV, 1). It was the ancient practice not to bond tower and curtain together.¹ Yet a tower would normally be erected before its adjacent curtain, hence there is reason to regard this tower and the similar second build of the curtain to the north as mere stages in a single plan of construction, but a plan adapted to what remained of the independent first build.

On making a detailed comparison between the masonry of the tower and that of the second build in the curtain, we find there are differences within the general resemblance. They are, firstly, that the comb-pick was generally employed for finishing the margins of the drafted stones in the tower (see Pls. LII, 3 and LIII, 2), while in the curtain this dressing is found on few stones, the majority being drafted with a straight-edged tool, either axe or chisel (see Pl. LII, 4 and 5); conversely, this kind of dressing is to be seen on comparatively few of the stones in the tower. Secondly, the masons' mark in the form of + or × (Pl. LII, 4, 5), which is found on the margin of many stones high and low in the curtain, does not occur at all in the tower. Yet the same kind of chalky limestone predominates over the red-veined kind in both; though it is less well preserved in the curtain, probably because it has been longer subject to the crushing weight of superimposed building there, or again because in the tower it is combined with rather more of red-veined stone, which is more crystalline and so harder (both known locally as *maliki*, 'royal' stone). There are the same prominent bosses in the masonry of both, save for the ashlar of the doorway reveal and the adjacent recess (Pl. LII, 1), or a few other stones here and there, where some attempt has been made to reduce the bosses to flat panels; yet the margins are worked true, the stones are well bedded and, wherever they have not been displaced, they fit close at the sides, though usually splayed inside that. What is more, the bond is the same in both, courses of headers alternating with courses of stretchers (cf. Fig. 9 on p. 138 with Fig. 1 (ii) facing p. 121). True, the lower courses of the face of the tower do not altogether bear out these points, nor indeed do they always show proper care in breaking vertical joints, but this is so mostly in courses that were buried below the contemporary ground-level. Otherwise the general resemblance holds good and is close enough to emphasize that tower and curtain belong to one and the same build.

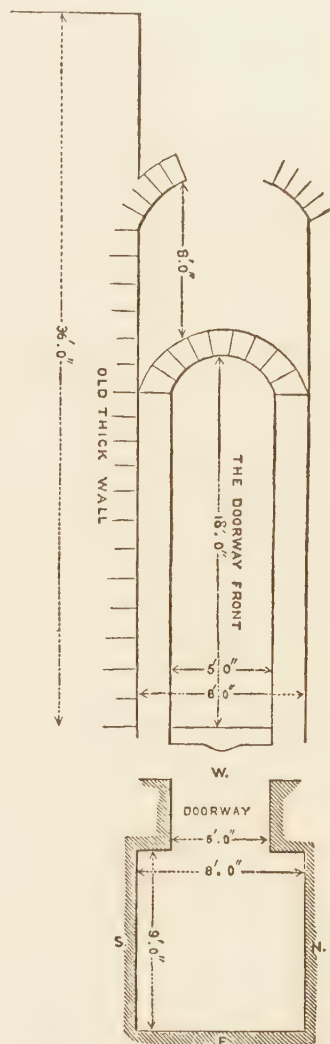


FIG. 8

¹ So Philo of Byzantium, writing in the second century B.C.; see his essay on fortification, para. 62, ed. Schöner, or in *Abhandlungen d. Preuss. Akad., philos.-hist. Klasse* no. 12 (1919). Professor A. W. Lawrence has kindly drawn my attention to this little-known work of Philo Mechanicus.

If the middle tower and the second build of the north curtain correspond in construction, how far do the deposits related with this build of the curtain in the eastern sounding correspond with those intersected by our sounding against the face of the tower? As may be seen from Fig. 9, below, here the foundations go deeper, reaching a level

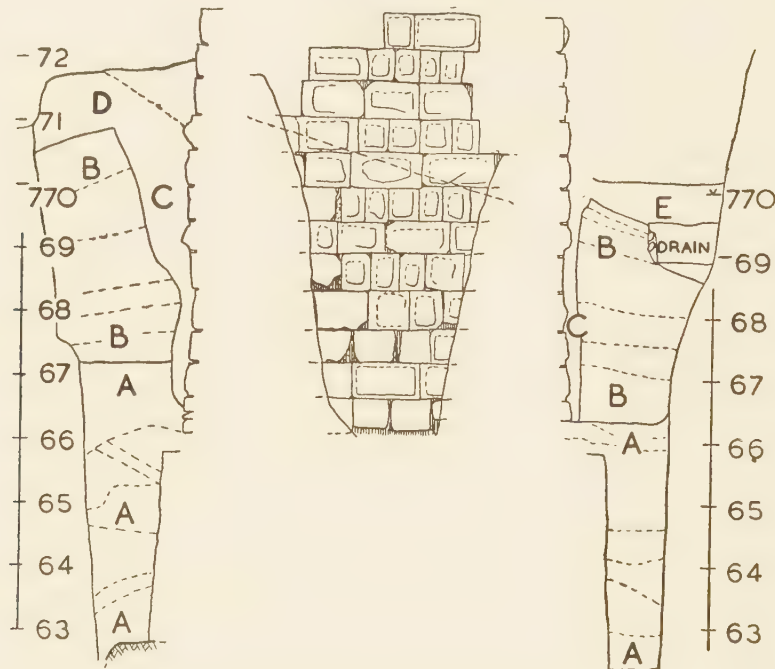


FIG. 9

Sounding *E* against face of middle ancient tower, its contemporary ground-level in broken line across the elevation

some 2 m. below the beginning of the second build in the curtain; they also rise higher, since the foundation cutting evidently began opposite the fourth course down, at the same level as the threshold of the doorway at the north-east, as indicated by the bottom of the ashlar reveal (Fig. 1 (ii)). The edge of the cutting was actually traced in plan from the sixth course downwards. Of the deposits (*a*, *b*) which it intersected, the greater part (*b*) consisted of thin layers of different kinds of rock and stone spoil or masons' chips that tended to recur in the same order from top to bottom. They were all tipped from north-east to south-west, and must have belonged to a heap of debris obtained from digging in the same succession of deposits, excavated patch by patch. Quite possibly they were thrown up in clearing the rock for the building of the tower. If so, they are not necessarily later than the lower deposits (*a*), which are definitely earlier than the tower. These consisted of layers of reddish field earth and masons' chips falling in other directions, mostly from north to south, over a quarry pit which was so deep that the builders gave up digging before they reached it. The top of these deposits (*a*) may well represent the ground-level which existed before the excavation for the tower was begun, for they are composed of the kind of clean field earth which accumulated against the first build of the curtain or which accompanied the second build there (up to (*e*), Fig. 5, p. 127), and

they rise to much the same level relative to the rock, here falling to the south-west. At all events, both (*a*) and (*b*) must plainly be anterior to the construction of the tower.

By excluding a strip along the face of the tower wide enough to contain the foundation cutting, we were able to separate the contents of these deposits (*b*) and (*a*) from the filling of the cutting (*c*), if not from the top of (*b*), at least from the sixth course down. At the same time we had to exclude the filling of a later excavation (*e*) for a medieval drain crossing the west corner of the sounding, which reached as low as the seventh course, having started from well above (*b*) in the deposits (*d*), which were Roman or later, the highest having been thrown in after the destruction of the tower in Mamluke times. In the undisturbed parts of (*b*) and of (*a*) below, as well as in the cutting (*c*), there were sherds of Hellenistic form and texture throughout, exemplifying the pottery types of Fig. 14 on p. 145, which were typical of the deposits accompanying the second build in the curtain (p. 135); and, as in that sounding, there was usually an admixture of earlier red-burnished and red-slip ware of one or other of the types shown in Fig. 6 on p. 129. Within the undisturbed deposits (*b*) there was not only black-varnished ware and a Rhodian jar handle, which unfortunately is scarcely legible, but also some scraps of red-varnished ware with buff body, as from the deposits between the second and third build in the curtain (see below, p. 144). Similarly, there were glass bowl fragments, as Fig. 10 *a*, of thick yellowish glass with rounded grooves inside the rim. In addition, about the edge of the cutting and possibly from the filling (*c*) rather than from (*b*), there occurred a bowl-rim fragment of thinner, perhaps blown, glass, Fig. 10 *b*. The coins in both (*b*) and (*c*) were largely of the second century B.C., and mostly types of John Hyrcanus, with some of the second-century Seleucids, including Antiochus VII, and two tetradrachms, one Ptolemaic, the other Tyrian, of the second century or earlier. But there were also several coins clearly of Alexander Jannaeus (103-76 B.C.), one well inside (*b*) about half-way down, the others in the intermediate strip alongside the cutting (*c*) or in the refilling itself. It follows that the construction of the tower cannot have taken place before the reign of Alexander Jannaeus.¹

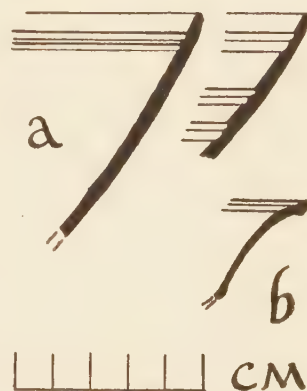


FIG. 10. Glass

Thus, as the earliest possible date for the second build of the north curtain we have the reign of John Hyrcanus (p. 135), and for the erection of the adjacent middle tower the reign of his successor, Alexander Jannaeus. Yet, for the structural reasons already discussed (pp. 136-7), the two works were most probably contemporary. Bracketing those dates, then, it seems possible that the construction may have been begun late in the reign of the former and continued under the latter, say, around 100 B.C. Under neither ruler, it is true, is any such work recorded by Josephus or any other historian. Yet the time was ripe for such a monumental fortification. Referring to Hyrcanus's action in opening

¹ But perhaps quite early in his reign, according to the classification of coin types proposed by the late C. Lambert, *PEFQS*, Oct. 1927, pp. 184-8; it would be interesting to compare these coins with his scheme, which I did not take into account when identifying them.

the tomb of King David to obtain the treasure to buy off Antiochus VII, Josephus adds that 'he was the first of the Jews who had money enough, and began to hire foreign auxiliaries also'.¹ After his later successes against the Syrians he would have been independent enough to fortify Jerusalem and would surely not have delayed in repairing the walls dismantled by Antiochus VII in 134. At the same time, to Alexander Jannaeus was due the castle in the Jordan valley known as the Alexandrium, usually identified with the ruins on the summit of the outlying conical hill east of Nablus known as Qarn Sartaba.² Our second build has some resemblance with the rugged masonry there (Pl. LIV, 4), although that is of basalt and so is drafted with the point-chisel instead of the comb-pick, which is suitable only for limestone. But since this castle was demolished by Gabinius and afterwards restored by Herod,³ it may be Herod's work that remains. At all events, it seems likely that the fortification exemplified by the tower and curtain of our second build would have been completed in the time of Alexander Jannaeus, and that it was a city wall of such a form that first daunted Pompey when, about to besiege the city in 63 B.C., he saw the walls were so firm that it would be hard to overcome them.⁴

Third period of construction: Herodian. When Caesar made Antipater procurator of Judaea in 47 B.C., he gave him leave to refortify, and Josephus tells us that 'the first thing he did was to rebuild that wall of his own country which Pompey had overthrown',⁵ meaning the north wall of the temple, presumably, for Pompey had been admitted into the city before he began to besiege the temple.⁶ The city wall elsewhere was not damaged then, it seems; nor in the Parthian attack under Pacorus (40 B.C.); but both the outer and inner northern walls were forced in Herod's capture of the city after he had been recognized as king by the triumvirs (37 B.C.).⁷ It was left for Herod himself to improve the north-west angle of the old wall by adding his three great towers, Hippicus, Phasaelus, and Mariamne, on the north side, adjoining his new palace in the upper city.⁸ Josephus describes them as square and gives their lateral dimensions as 25, 40, and 20 cubits respectively, their solid height as 30, 40, and 20 cubits, which in each case was more than doubled by the superimposed rooms and the defences. They were built in the old wall—'in the very old wall', he writes in one place, and in another he asserts that it was the work of 'David and Solomon and the following kings'.⁹ Because the wall stood 'on a high hill' the towers were the more prominent, and their construction was so massive, yet so exact, that 'each tower looked like one entire rock of stone, so growing naturally and afterward cut by the hands of artificers into their present shape and corners; so little or not at all did their joints and connection appear'.¹⁰

In its dimensions the base of the north-east tower (marked 'Phasael' on Fig. 23, facing p. 162) approaches closely enough to the figures which Josephus gives for the solid base of Phasael, if we assume that his cubit is the equivalent of the Attic (or Olympic) cubit of 18.2 in. = 46.2 cm. Its height, as revealed by a sounding down to rock on the

¹ Josephus, *Wars*, I, ii, 5.

² See F.-M. Abel, *Revue biblique*, 1913, pp. 227 ff. and Figs. 8 and 9.

³ *Wars*, I, viii, 4-5; xvi, 3.

⁴ *Ibid.* vii, 1.

⁵ *Ibid.* x, 3-4.

⁶ *Ibid.* vii, 2-3; cf. F.-M. Abel, 'Le Siège de Jérusalem par Pompée', in *Revue biblique*, April 1947, pp. 249 ff.

⁷ *Wars*, xviii; *Antiq.* XIV, xvi, 2-4.

⁸ *Wars*, I, xxi, 1; V, iv, 3-4.

⁹ *Ibid.* I, 4.

¹⁰ *Ibid.* 4, Whiston's translation.

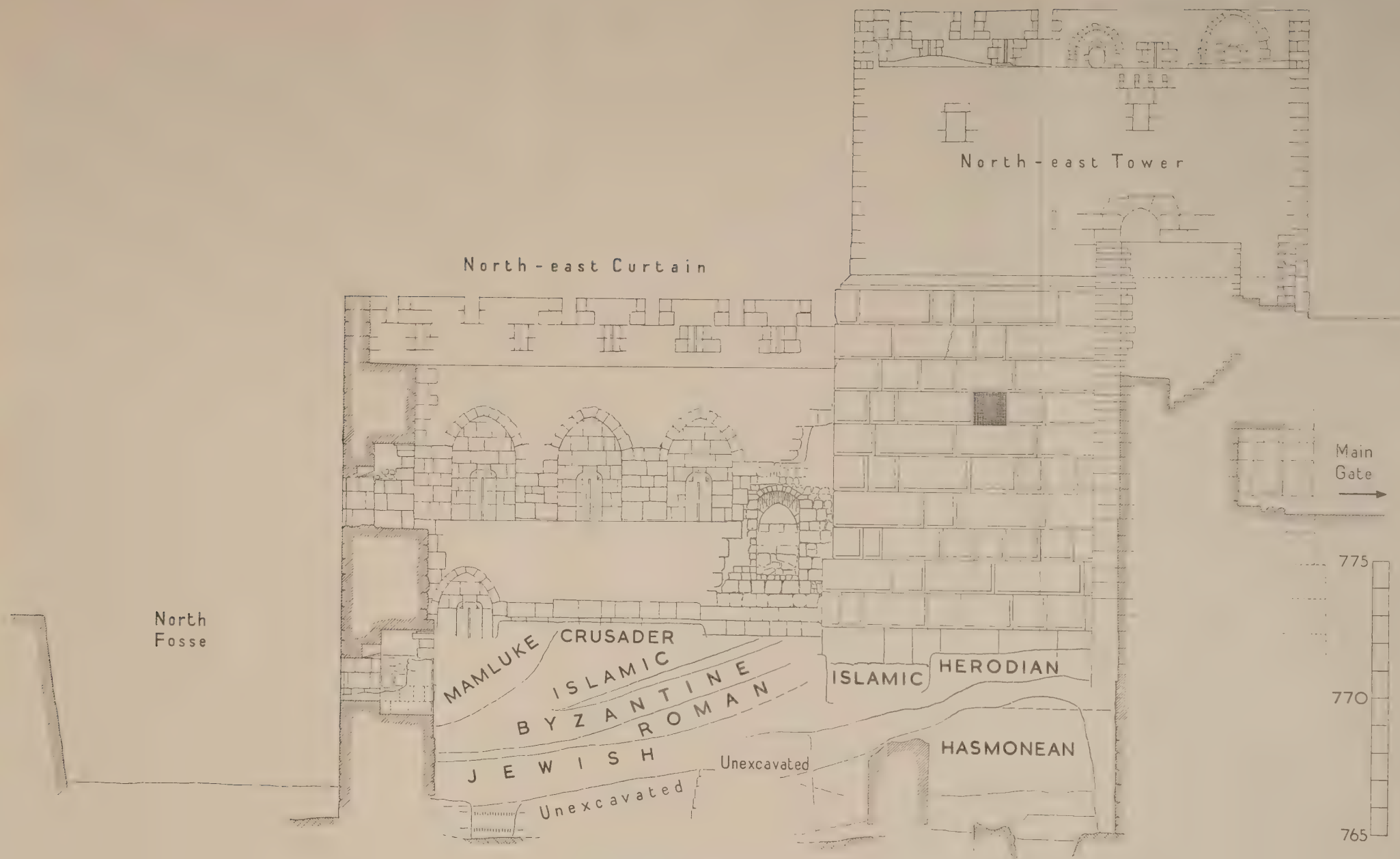


FIG. 11. Section X-X



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north side within the courtyard, is 19·85 m. or 42·9 cubits. It is built in two tiers of eight courses each, the upper being set back from the lower so as to leave a pronounced plinth, but of divergent width since the upper tier is slightly askew (see Figs. 1, facing p. 121, and 11, facing p. 140). Most of the courses in the upper tier are themselves set back slightly, but for the sake of clarity our plan (Fig. 23) shows only the top course of the upper tier and the outer edge of the plinth so far as it is exposed along the north and west, roughly half-way along either side from the north-west angle. In the lower tier the backset is negligible, only a few centimetres from the line of the first drafted course, that second from the bottom, up to the outer edge of the plinth; and these courses would have been more or less buried, probably up to the seventh or eighth on the west and the fourth or fifth on the north. Measured at the middle of the north and west sides, the total backset from the edge of the plinth to the top is 57 cm., which should be the average for the other two sides if the lower tier is as nearly rectangular as the upper. At the top, the north side measures 21·4 m., the east 17·12 m.; these alone can be measured exactly, since the south-west angle has been slightly altered, but it seems that the other two sides were very nearly the same. Adding the assumed average backset of twice 57 cm. for the two sides, the dimensions of the lower tier would be nearly 22·6 by 18·3 m. at the edge of the plinth, or 48·9 by 39·6 cubits, a mean of about $44\frac{1}{4}$ cubits. Or again, deducting the average of twice 57 cm., or $2\frac{1}{2}$ cubits for the total backset of the upper tier, we have a mean of $41\frac{3}{4}$ cubits for the top. These mean dimensions, $44\frac{1}{4}$ or $41\frac{3}{4}$ cubits, and the actual height of 42·9 cubits, thus exceed by a little the round figure of 40 cubits each way which Josephus gives for the solid base of Phasaël, the largest of the three towers.¹

Its structure corresponds with Josephus's description in its outstanding features. It is almost certainly of solid masonry throughout, nowhere of rock scarped and faced with masonry, since our sounding proved that the north side, in its western half at least, is for the most part founded on the virgin rock at a level no lower than the average rock surface along that contour. The only known entrance to the interior is at the hole in the fourth course from the top on the west side (see Pl. XLVIII, 1), and this is doubtless due to the extraction of several stones belonging to that course. So the German architect Conrad Schick concluded when he discovered the passage, after vainly attempting to dig down from the vaulted hall above.² By comparing the bond of the inner blocking with that visible from the outside, and by measuring the inward length of the stones by means of a hooked iron rod inserted in open joints here and there, he arrived at the plan of that course which is reproduced in Fig. 12 (the stones left blank being conjectural). In the shape of the blocks the double-cube proportion of the earlier builds is kept, but the bond

¹ The identification of this tower with Phasaël rather than with Hippicus, the next largest, was first proposed by James Fergusson in his *Essay on the Ancient Topography of Jerusalem* (London, 1847), p. 36, after Lts. Aldrich and Symonds of the Royal Engineers had made the first exact plan of the Citadel while serving in Syria under Lt.-Col. Alderson in 1840-1; see the reproduction of this plan inset on the ordnance plan of Jerusalem contained in Williams's *The Holy City*, 2nd ed., 2 vols. (London, 1849). Accepting this identification, Williams then suggested (pp. 14-17) that the present north-west tower must mark the site of Hippicus, a suggestion which has been generally accepted but no longer seems tenable; see below, p. 188.

² See his account, 'Der Davids Thurm in Jerusalem', in *ZDPV*, Vol. I (1878), pp. 231-3.

is new, header and stretcher alternating in the same course. Presumably this course exemplifies all except the second to fourth on the north. As may be seen from Fig. 1 (ii), facing p. 121, and Pl. XLVIII, 3, these three are not fully of the usual height,

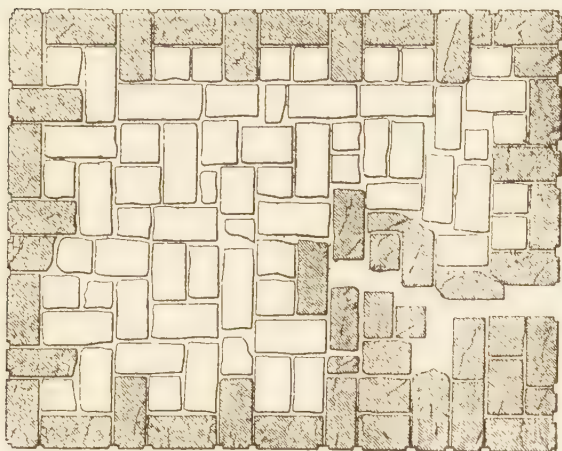


FIG. 12

but are built up in a series of steps, conceivably in order to produce a ramp for hauling the great stones up. That it does not continue along the west side is to be explained by the fact that the ground-level on that side rose in a slope ascending as high as the fifth course near the curtain; it appears as the surface of (e) in Fig. 13, p. 143, and, as has been pointed out on p. 135 above, it had been cut to this gradient, for stones as large as these, weighing up to 10 tons, could only have been hauled into position on an easy slope. It must be for this purpose that they were pitted, for the larger square pits which appear on the faces, roughly 20 cm. each way and usually about half-way up, are gener-

ally cut deepest and straightest at one side as if to take a lateral pull; only when placed near the upper or lower edge are they cut straight above, but more probably for the purpose of leverage than for hoisting. Large as these stones are, they are not so huge as Josephus estimated.¹ But wherever they are still undisturbed by earthquake or settlement, as at the north-east angle (Pl. XLVII, 3), they still fit very closely. Rarely, however, are they so neatly panelled as they are there; from the seventh course upwards, however, some attempt has been made to reduce the boss in most cases. Otherwise, although the margins, sides, and beds are always worked true with a coarse comb-pick, the centres are still quarry-faced and far from vertical or straight. Yet being all of that fine white and red-veined kind of local limestone known as *maliki* or 'royal', *par excellence*, which glistens like sugar when newly cut, they would have made just such an artificial crag as impressed Josephus.

Again, Josephus's statement that the towers were built in the 'old wall' or the 'very old wall' takes on new significance when we examine the relation between this tower base and the adjacent curtain on the south-west, as it had been left by the later Hasmonians. From the stepped junction at the east end of that second build, as exposed in our eastern sounding (Fig. 1, facing p. 121, and Pl. L, 1 and 2), it is plain that the finer masonry on the left, or east, must have come later. Not only does the latter rest upon two courses of the second build which continue eastwards beyond the sounding (Pl. L, 2); but, breaking courses above that, it is actually fitted into the stones of the former, new beds or angles having been cut with care to receive the new stones. Although not all the new courses have been fully exposed, they run so uniformly that there can be no doubt that they form a single piece of masonry filling in the gap between the tower and the broken end of the older wall. In contrast with this, they are all of the harder stone used in the tower, white,

¹ *Wars*, V, iv, 4: his figures are the equivalent of some $9 \times 4 \times 2$ m., more than double the size of the largest!

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red-veined, or altogether pinkish, with finely comb-picked margins worked absolutely true and fitted extremely close, the courses running perfectly straight though tipped slightly towards the curtain from the third or fourth upwards. The first five stop short of the side of the tower, but the sixth and seventh fit closely; and those next above once fitted no less closely, though their contiguous edges have been almost entirely shattered, doubtless under pressure from the immense weight of the tower base. Altogether there are twelve or perhaps thirteen courses still in position, courses of stretchers alternating with courses of headers in imitation of the bond of the older wall, their stones matching those of the older wall in height and size, if not in dressing. For, as in the tower, their centres have been chiselled down to a slightly raised panel in many cases, more frequently

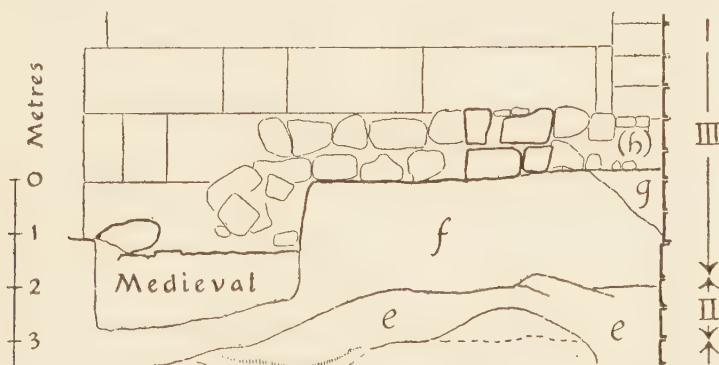


FIG. 13. Sounding against north ancient curtain (at C), upper levels

than in the curtain and with greater neatness. In some instances this re-dressing must have been in progress after they were built, since a bed of clean, sharp spalls or chips of the same kind of limestone was found against the wall at the contemporary ground-level, against the fourth course and on the filling of the builders' cutting (see Fig 13, g, cf. Fig. 4, p. 126). The next course but one above is the first course to meet the tower, and the course it meets is the lowest which has most of its stones panelled, that is, the lowest that was meant to show in either case.

From the section against the foot of this build seen on the eastern side of the sounding (Fig. 13, p. 143, also plan of cutting, Fig. 23, after p. 162), it was clear that this build had been preceded by the deposits (f), was accompanied by the cutting (g) reaching down nearly to its foot on the top course of the second build here, and, having been directly followed by the filling up of the cutting (g) with its covering of dressers' chips, that it was subsequently covered by (h). The deposits (f), which were highly mixed and laid in even patches as if tipped in small loads, ran on to the west side of the tower base and into a wide cutting in the slope of reddish earth (e), the edge of which ran nearly parallel with the side of the tower, as far as it appeared in our sounding at right angles to the tower, and was level with the fifth course up, that is, the third below the eventual ground-level. If this was the foundation cutting for the tower, then the deposits (f) must have accumulated between the erection of the tower and the closing of the gap between it and the broken end of the curtain. On the north side the ground seems to have been still lower when

building started; the slope of (*e*) was cut away here by an excavation made by the Romans when they built the wall to the north of the tower some centuries later (see plan, Fig. 23, after p. 162); and the filling against the tower had been removed in a clearance made some years before the present excavations began, but, although this nearly coincided with the excavation made for the foundations of the tower, it was still possible to detect the profile of the original cutting on either side of a section cut at right angles near the south-west angle of the tower (at *A*, Fig. 5, at left). It could be traced up to the floor of the Roman excavation, level with the top of the second course, and may well have gone higher, possibly up to the fourth, which is the first to display a panelled stone on this side, namely, that at the south-west corner. If so, the surface of (*e*) would have fallen in a steady slope, and since it cut across strata which strike upwards, and was therefore an artificial slope, it seems likely that it was made as a ramp for hauling up the large stones for the west side of the tower (see above, p. 142). For the same purpose, the deposits (*f*) may then have been dumped in order to raise the surrounding level as the building rose. They were a mixture of stone or rock spoil and midden refuse, which contained much broken wall plaster that must have come from an inhabited area inside the walls; it is conceivable even that it may have come from a general demolition and clearance that Herod was having made, to clear the ground for his new palace to the south and east.

From the chronology of Herod's reign the building of the towers must clearly have been finished by 29 B.C.¹ That the period of construction came late in the century is all that can be inferred from the contents of the deposits (*f*), which filled in the cutting and covered up the foundations of the tower, or from (*g*), the filling in of the cutting in (*f*) made for the first four courses of the patch in the curtain. Coins of the types of Alexander Jannaeus or his successors (103–76, 67 or 63–40 B.C.) predominated throughout (*f*) so far as it was undisturbed by secondary excavation; there were earlier types of John Hyrcanus I and the second-century Seleucids, but nothing later than Alexander Jannaeus or John Hyrcanus II. Sherds of the principal types shown in Fig. 14 were abundant. Again, complete cooking pots as (2*a*) were found *in situ*, in this case on the filling against the fourth course of the tower, and their mouths were covered with saucers as (3). Alongside them were broken but complete jars as (1) and bottles as (4*b*), supplying the examples illustrated. Clearly these forms at least were contemporary with the construction.² But all the types grouped in Fig. 14 were associated with the previous build as well, to judge from the underlying deposits (*e*) and those contemporary with the middle tower (pp. 135, 139).³ Red-glazed ware occurred in (*f*) similarly, and thick glass bowl fragments as Fig. 10*a*, on p. 139. Yet it may be significant that among small fragments of painted ware, done in black, dull brown, or red on the usual fabric, the mixed deposits of (*f*) produced others of finer red ware painted in bright red like the Nabatean ware of

¹ A. H. M. Jones, *The Herods of Judaea* (Oxford, 1938), p. 75. The whole palace was finished by 23 B.C.; see G. Adam Smith, *Jerusalem*, (London, 1908), Vol. II, p. 499.

² These types have lately been recorded from Jewish *kokhim* tombs on the Mount of Olives that can be dated to the first centuries B.C.–A.D. See P. Kahane, 'Pottery types in Herodian tombs near Jerusalem' (in Hebrew), in *Jewish Hellenism*, a forthcoming volume dedicated to H. J. Lewy, p. 86.

³ These are simply the common forms, without unusual varieties. A full record illustrating all the pottery types found in each layer of the important part of this sounding (K–6) is in the Palestine Archaeological Museum.

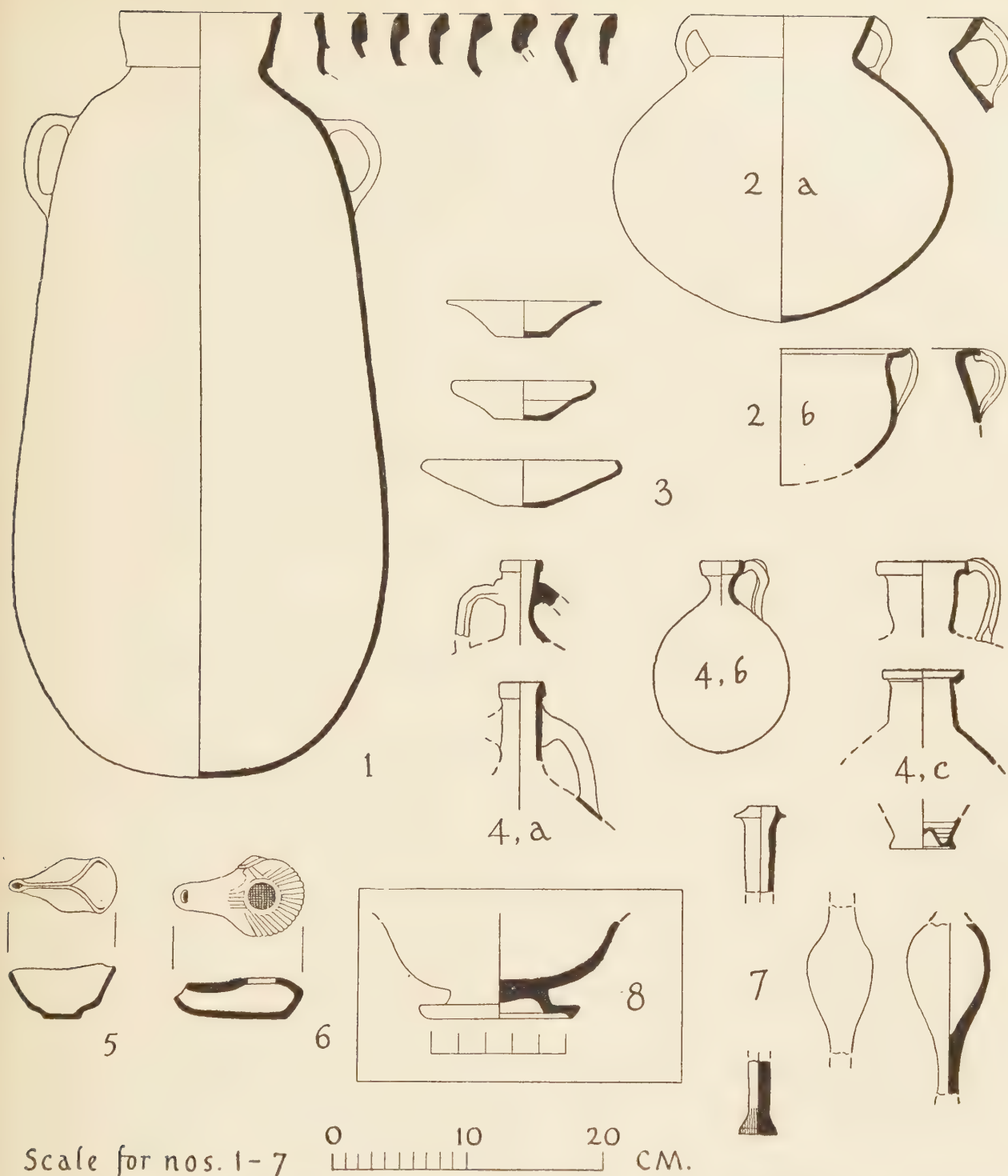


FIG. 14. Pottery types of sounding C, against north ancient curtain, deposits *e*, *f*, *g*, *h*, mainly from *f* (Fig. 13).
First century B.C.

Ware generally clean, hard, and metallic, firing light red to buff, sometimes showing fine white grit. 1. Amphora with varieties of rim, the last at right going with twin-ribbed handle bent at right angles (cf. Pl. LVII, 2); handle usually has single ridge; bottom of jar commonly shows slight rippling; 2. Cooking pot, form *a* very much more frequent than *b*, but always of dark-red ware, slightly rough to the touch; 3. Saucer, both forms of rim common, the body often rippled; 4. *a*, neck fragments of flasks or water-bottles for carrying, the handles sometimes twisted, of rougher ware, probably porous; *b*, globular bottle, well made, sometimes slip-smoothed towards bottom; *c*, delicately made jugs with circular mouth and spreading lip as for oil; ring bases of similar ware found, but no example could be completed; 5. Lamp, more frequent than 6; of thin ware as 3 and 4 *c*; 6. Lamp of moulded form, less frequent than 5; of thicker red ware, sometimes with traces of bright-red slip or paint. Present specimen from deposit *h*; 7. Mouth, body, and base fragments from 'tear bottle' of spindle form without handle; usually of rather rough finish but often painted with bands of red or brown paint; 8. Bowl of smooth light-red ware with matt slip of dark sealing-wax red, a nearly complete specimen of a class of ware generally represented by small scraps from bowls or bottles throughout the deposits, *e-h*.

Petra. Pl. LVII, nos. 3-12, give some examples, all fragments of saucers or cups, of which nos. 9, 10 are like the Nabatean. (Nos. 11, 12, which are of the usual red ware, have Hebrew characters which may be compared with those on a stamped jar handle of the period, no. 2.)¹ The fabric and brushwork is inferior to the best of the Nabatean ware, but the same slipshod use of a rather full brush occurs on some of the sherds from Petra also.² Since Herod's father Antipater came from Idumea,³ such distinctive ware may well have reached Jerusalem by this stage, and in the absence of any coin of Herod's reign it may serve to link the deposits with his work.

Accompanying the insertion of the tower came the outer fortification or revetment represented by the line of heavy foundations in Pl. XLIX, 2 and 3, as they were before they were removed to display the city wall behind. As shown in the plan (Fig. 23, after p. 162), they ran parallel with the curtain and returned with the adjacent side of the tower, passing a little beyond the south-west angle as if to continue around the tower. Their disappearance from its north side is explained by the deep Roman excavation shown in Fig. 5, (i), p. 127. On the other hand, at the south-west end of the curtain they stopped short of the middle tower just where another return might be expected; however, this part would have disappeared along with the north side of the tower. Comprising at the most three courses of large, roughly squared blocks of chalky or red-veined *maliki* stone, they were let into a deep bed of spalls or chips of soft, yellowish stone which rose to the eighth course of the new build against the tower (or the tenth in the older curtain, at (h), Fig. 13, p. 143), and would have covered the eighth course of the tower base if it reached so far, as was suggested by some slight traces remaining from a recent clearance there. This bed did not extend outside or north-west of the extra blocking along either arm, or else it had been removed during secondary excavation in early Islamic times. But on the south-eastern or inner side, at about the middle of the curtain, it was clearly intersected by a shallow foundation cutting against the footings and first course of the blocking. This contained yet another complete cooking pot of type 2 a, also the lamp 6, from Fig. 14 (p. 145). In both the preceding and subsequent accumulations, (h) in Fig. 13 (p. 143), in the occasional patches of earth and white stone chips interspersed among the yellow stone spoil, there were sherds of type 2 a and others common to (f). Jewish coins of the type of Alexander Jannaeus and his successors (to 40 B.C.) occurred, and one of Herod; others of Alexander Jannaeus were found beneath the blocks, well within their beds. Hence both the deposit and the building must have closely followed (f), and may well be of Herodian date also. It would have furnished an extra protection to the wall as the revetment of an outer *chemin-de-ronde* or *terre-plein*, bank or glacis; known to the Romans as the *agger*, such a revetment served to protect the foot of the wall and its towers against sapping and mining, and was an essential part of the ancient scheme of fortification.⁴

¹ The stamp appears to read: עשרוש, but its meaning is unknown. I wish to thank the Rev. Canon H. Danby for help with this.

² Cf. G. and A. Horsfield, 'Sela-Petra, The Rock of Edom and Nabatene: IV, The Finds', in *QDAP*, Vol. IX, especially Pls. XIX, 133; XX, 153; XXXVI *et seq.*

³ Josephus, *Wars*, I, vi, 2: 'one of the principal of that nation on account of his ancestors and riches, and other authority to him belonging.'

⁴ As mentioned by Vitruvius, I, x, 24-5, ed. Choisy, tome III, pp. 38, 40; cf. Pl. 79, 3 in tome IV.

At the same time both the north and south curtains were rebuilt on the inner face behind the middle tower, as appears from several courses of masonry resembling that of the third build on the outer face adjacent to the base of Phasaël (cf. Pl. LIV, 1 and 2, with Pl. L, 1). They are of the same kind of hard limestone, white or red-veined; have rock-faced or roughly panelled centres, but finely comb-picked margins and edges dressed very true, with exceptionally deep, full beds. They partly follow the bond of the outer face as existing in the north curtain, course of headers on course of stretchers, but partly the newer bond of the base of Phasaël, headers and stretchers alternating in the same course. This mixed work either embodies stones of the second build or rests upon it.

At the north (at *M*, Fig. 23, after p. 162; Pl. LIV, 1) there are four courses starting level with the eighth course of the second build, that is, only two courses lower than the top of the yellow spoil between the curtain and its outer revetment. The lowest course, which was seen only at the obtuse angle and to the south of it, there rests directly on the small rubble of the first build. But the in-filling, though mostly of rough blocks, includes a finished stone of the second. At the south (at *L*, Fig. 23, after p. 162, and Pl. LIV, 2), there are two courses starting at about the same level, but here resting on what appears to be a masonry of the second build still *in situ*, beginning just south of the angle where the rubble wall of the first build breaks off. In front of the only two stones that are visible, and slightly higher, there is a divergent course of small masonry made up of long thin stones laid in a characteristic Hellenistic bond, a stretcher between headers (see plan, Fig. 23, after p. 162). It once stood higher, as is shown by a single stone remaining at the acute angle. From this, and the fact that the first course of the third build is laid a little in advance, it seems likely that the stones below actually represent the second build on this face of the south curtain. However, it could not be traced to the south without much demolition, for after stepping up two courses, then down one, the remaining masonry of the third build reaches, at *K*, an offset that has been splendidly refaced to a depth of nine courses (see Pl. LIV, 3).

For refinement, strength, and beauty, this refacing can be compared only with the masonry of the curtain adjoining the base of Phasaël; but its bond is that of the tower base itself, header and stretcher alternating in the same course. Besides its extremely fine joints and deep beds it has this rare refinement, that its beds are slightly tipped inwards so that the section would show a slight convexity in the profile of the face. Its in-filling includes typical stones of the second build. But no clear evidence of its building level or date emerged from our sounding, for it had been opened up in medieval times almost right down to the bed of field stones on which it is founded. There were some remains of a flagged pavement near the bottom.

At only one other place within the city wall was such a level reached, viz. at the bottom of a dry-stone corbelled chamber at the end of the eastern arm of the angle of Roman foundations west of the present east tower (see plan, Fig. 23, after p. 162; section, Fig. 15, facing p. 148; cf. Pl. LVI, 1, where the opening of the shaft which gave access to the chamber, and is still accessible, is seen on the left). Here, at a depth of 4 m. below the Roman level (as noted on p. 152 below), there is a line of good ashlar masonry running from north-east to south-west, that is, nearly parallel with the inner face of the north

curtain (north-east of *M*); evidently anterior to the chamber, its top runs at almost the same level as the foot of the refacing of the curtain at the south-west, at *K*. Hence this refacing must be pre-Roman likewise, and may well be part of the third build. Since it is on the inner face of the city wall it is even possible that, together with the line of masonry to the north-east, it belonged to Herod's upper palace, for instance to one of the 'many porticoes one beyond another round about'.¹

Fourth period of construction: End of the Jewish period or Roman? For the rest of the ancient city wall visible in the courtyard, viz. the front of the south curtain and the presumed south tower (see Fig. 1 (i), facing p. 121), a fourth build has to be postulated, for the reason that it embodies stones taken from the second and third. They are mostly damaged stones with broken corners or edges, and they vary enough in height to make the coursing uneven, the shorter stones having been pinned up with stone spalls to regulate the difference. Even rough stones, as from the in-filling of the earlier builds or the face of the earliest, are used here and there. Altogether it has the appearance of a make-shift rebuild made up of debris from the first, second, and third (Pls. LV, 2; LXIV, 2).

The top of the south curtain is seen in Pl. LV, 1 (above arrow and towards arch) standing above parallel foundations of the Mamluke or Turkish periods, for here it seemed better to leave the heavy later masonry in position to support the poorer ancient construction behind. A vertical strip of the face is to be seen in a large man-hole near the former junction of the curtain with the middle tower (at *F* on plan, Fig. 23, after p. 162); stones of the first build appear below, stones of the second or third above. But from the broken end of the wall here (Pl. LV, 1), it is evident that this face was not a reconstruction of the first build as the other face was of the second, but that it was a thickening of it, since the top of the early rubble disappears behind the extra masonry forming the new face on the west, and the straight curtain takes a sharper line than the original bend (see plan, Fig. 23). In the man-hole the masonry of the outer face is visible to a depth not far short of the ground-level contemporary with the neighbouring middle tower of the second build (Fig. 9, p. 138). But little of the subsequent deposits remain there or anywhere along the face, except perhaps towards the south end (at *G* on plan, Fig. 23). Here, in front of the third and fourth courses from the top, and surrounded by later foundations, is a portion of what appears to be a protective blocking like the revetment in front of the north curtain. Consisting mostly of large, wedge-shaped but natural stones, laid in courses and tightly packed, it stands less than a metre higher than the highest stones that remained of that revetment, and, though dissimilar in being close to the wall face, it has a parallel in the blocking that exists against the other known portion of this rebuild, the presumptive face of an adjacent tower, the 'south tower' of Fig. 1 (i), facing p. 121.

That this third tower existed is presumed not only on the ground of symmetry, but also because its probable outline is closely followed by later constructions (at *G-H* and *J*, Fig. 2, p. 123). All that could be discovered without demolition or undermining was the short strip of three large courses seen beside the blocking in Pl. LV, 3 (at *H* on plan, Fig. 23, after p. 162). As comparison of Fig. 16 with Fig. 9 on p. 138 will show, both

¹ Josephus, *Wars*, V, iv, 4.

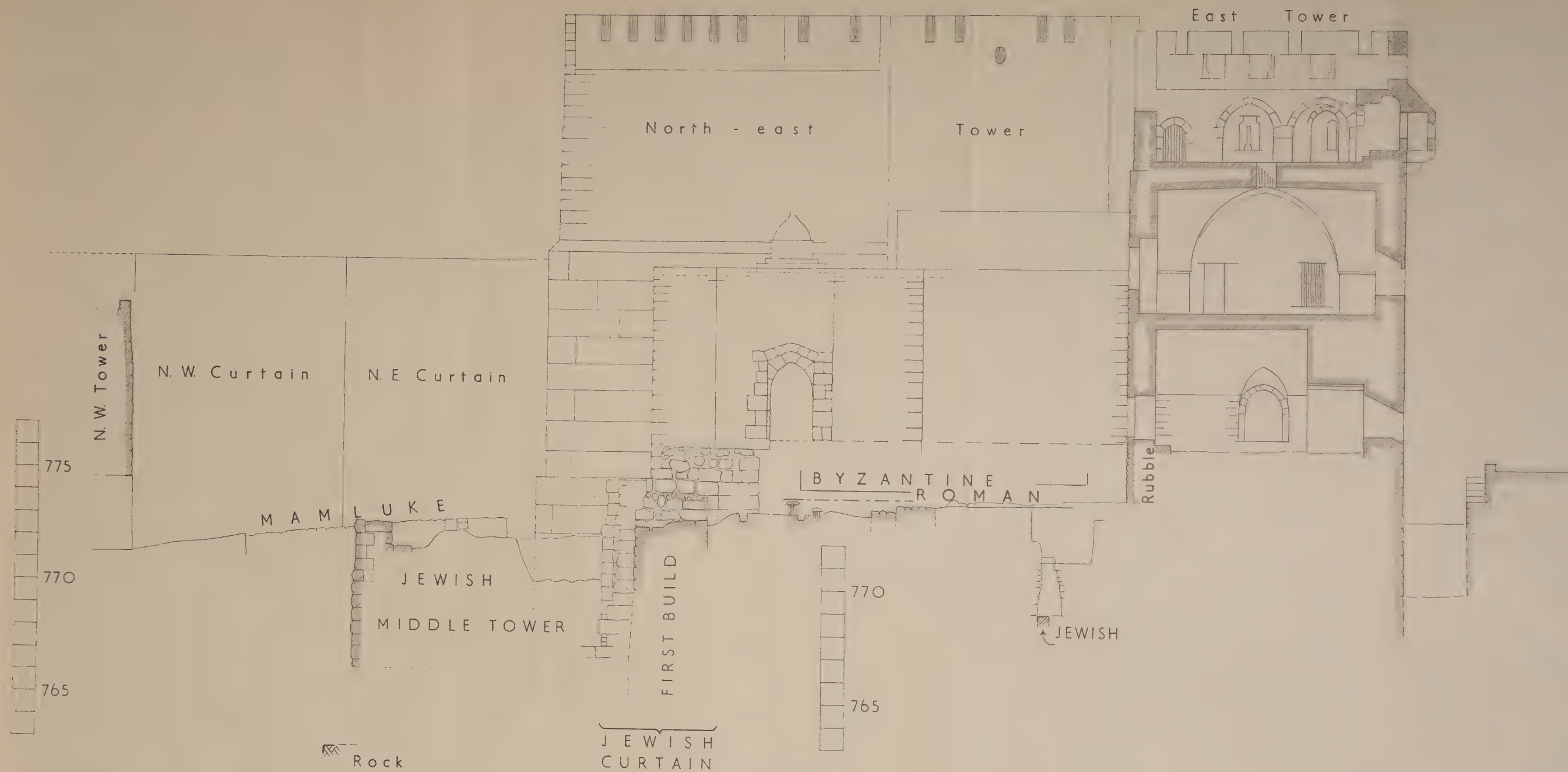


FIG. 15. Section Y-Y



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the masonry and the external blocking are founded at about the same level as existed at the time of the building of the middle tower to the north. On the other hand, the top of the blocking is over 3 m. lower than the top of the similar blocking against the south curtain (at *G*). But no less a fall is to be expected here, for under the minaret tower to the south (9 on Fig. 2, p. 123), the rock was found to drop vertically for no less than 5 m., doubtless in continuation of the cliff crossing the east end of the deep fosse beyond (18,

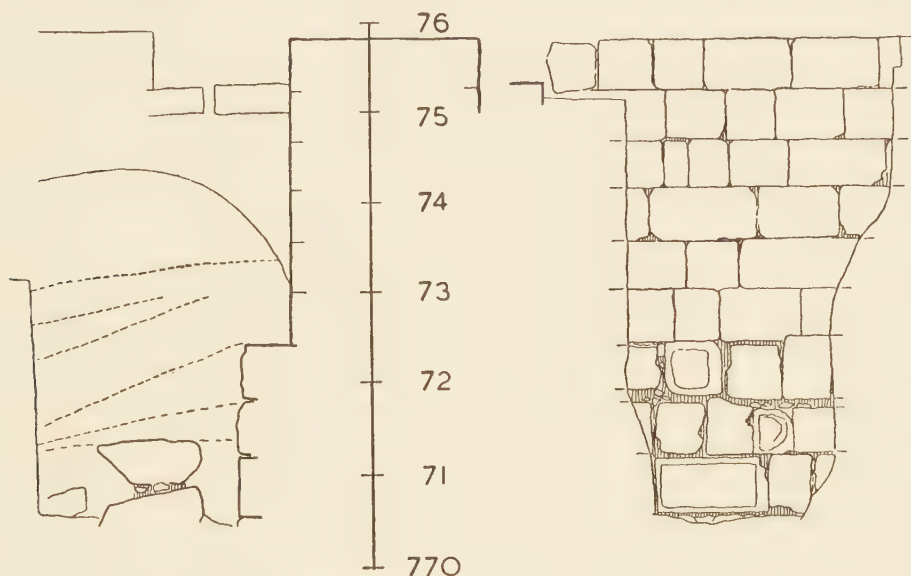


FIG. 16. Sounding against face of south ancient tower (at *H*)

Fig. 2, p. 123). In the minaret tower our sounding penetrated ancient deposits throughout, and produced the pottery types associated with the second and third build of the north curtain, with another complete cooking pot; hence, a talus of debris had already accumulated in front of the cliff face. Since no foundation cutting is apparent in the sections against the wall and blocking of the presumed south tower to the north of that (Fig. 16), both must have been laid on the surface, and the blocking itself must have been covered over to form a terrace at the foot of the wall. The filling between its stones or between it and the wall face, in fact, contrasted with the subsequent deposits in content: above there was an admixture of Early Islamic glazed ware, but level with the blocking only Early Roman types occurred along with the Late Jewish, e.g. legionary tile fragments, the sharp-shouldered form of cooking pot shown in Fig. 20, 6 (p. 155); and a piece of terra sigillata, 2, along with the local red-slip ware imitated from the Samian, 1.¹ The only recognizable coin at this level was of the type of Alexander Jannaeus and his successors (to 40 B.C.). We did not remove the blocking to probe the deposits beneath the wall, but if the blocking can be regarded as contemporary with the wall, then this fourth build is of the beginning of the Roman occupation.

¹ Compare the content of deposits at the foot of the north wall of Jerusalem as sampled in three soundings, in two of which (*B* and *C*) the lowest deposit was prior to late third- or early fourth-century construction, see *QDAP*, Vol. X, pp. 9-10, 19, 29-30, 43-4, 45. The sharp-shouldered cooking pot occurs in first-century Jewish tombs.

From the fact that this rebuild in the south tower and curtain embodies stones chiefly of the second and third build, it is to be inferred that a tower of those periods once stood here but was destroyed and rebuilt from the fallen stones. There are two occasions towards the end of the Jewish period that might relate to such a hasty and makeshift repair. It may have been a tower on this site which was destroyed in the insurrection against King Herod Agrippa II, which Josephus regards as the beginning of the war with Rome. The king's troops had retired into the upper palace and were besieged there by Manahem, who succeeded in undermining one of the towers. No sooner had they surrendered than the Romans abandoned their camp and took refuge in the three royal towers of which Phasael was one.¹ This undermining must have taken place somewhere on the circuit of the palace wall, which included the part of the city wall forming the north-west angle as traced in the Citadel courtyard. A few months later, after Cestius had retreated from Jerusalem, and war had become inevitable, governors were chosen 'with a particular charge to repair the walls of the city'.² Such rebuilding as this fourth build may well have been done at such an emergency. Yet Josephus later tells us that during the final siege by Titus the Romans themselves attacked the upper city on this side, raising their banks 'on the west side of the city, over against the royal palace', and how at the last the rumour went round that 'the western wall was entirely overthrown'.³ Their garrison, the Tenth Legion, was afterwards quartered in this part of the city, and the western wall was preserved from the general demolition on that account, along with the three great towers which, according to Josephus, Titus left 'as a monument of his good fortune'.⁴ Consequently the Romans themselves would have taken the trouble to repair this part of the wall, and that they should have simply made use of fallen material in doing so would not be surprising in the circumstances.⁵ Whether Jewish or Roman, this fourth build most likely represents the repair of destruction caused during the First Revolt.

(c) *Parallels in the southern sector of the ancient circuit*

Before passing on to the later periods represented in the Citadel, it remains to point out the bearing our discoveries have on those of earlier archaeologists, particularly the discoveries made by the late F. J. Bliss and A. C. Dickie (of the Palestine Exploration Fund) along sections of the ancient circuit lying between Bishop Gobat School and the Pool of Siloam to the south of the present walls. From their precise and admirably illustrated record,⁶ and from the representative portion of the lower and older wall still accessible at the new Latin Cemetery,⁷ it seems clear that the styles present in the lower line are no other than those we have identified in the Citadel courtyard, and that the line as a whole was work of the same periods as the second and third build there.

¹ Josephus, *Wars*, II, xvii, 6-8.

³ *Ibid.* VI, viii, 1, 4.

² *Ibid.* xx, 3.

⁴ *Ibid.* ix, 1; VII, i, 1-2.

⁵ A parallel may exist in the present city wall east of the Dung Gate (*Bāb el Maghariba*) if this unusually long straight run is to be identified with the southern wall of their stadium, as I suggest in 'Discoveries in Palestine since 1939', *PEQ*, Oct. 1948.

⁶ *Excavations at Jerusalem, 1894-1897*, published by the Palestine Exploration Fund, London, 1898.

⁷ The east side of tower T, the curtain to the east, and the first return, *ibid.*, General Plan no. 1 and pp. 29-33 with Pl. IV.

Thus, courses of masonry resembling our second build in size, dressing, and bond, especially in its rather narrow headers, heavily bossed centres, and usually chiselled margins, were found at several places on the line stretching from the south-eastern point of the western hill, Mount Sion, down to the gate at the angle south of the Pool of Siloam (at *Y* and *Z* on either side of the Jewish Cemetery and again at *C 2* beside the gate south of the Pool).¹ It was founded on the rock or on rude rubble standing several feet high, which gave the line where the ashlar was missing. It recurred in several of the soundings along the wall crossing the valley, where it belonged to the original buttressed construction (e.g. at *F 2*, with what look like re-used stones of the same build at *K 2*),² and yet again in the wall running north-north-west from that along the west side of the old pool (at *O 2*, with masons' marks in the form of a simple triangle).³

Likewise there were instances of restoration in the style of our third build. Thus, at either end of the wall crossing the valley, in the tower near the gate at the south (from *D 2* to *E 2*), and at the angle terminating the wall on the north (from *L 2* to *M 2* and along the return), there was fine jointed masonry with comb-picked margins and centres either rock-faced or panelled, which was secondary to rubble construction.⁴ No less splendid masonry exists far to the west at the tower accessible in the new Latin Cemetery at the south of the western hill (tower *T*, west of the long, chambered tower), where it precedes a reconstruction utilizing stones that resemble those of all three builds in the Citadel.⁵ For, to the east of the tower, several courses of squared rubble like our first build are still in position,⁶ and more existed in the ruined front wall of the neighbouring chambered tower (in front of the later Tower IV of the upper, Roman line) to judge from the authors' account of it.

Such characteristic styles as the second and third build can be readily recognized; such indifferent work as the first might well be foundation work, as indeed the authors sometimes took it to be. But in this and one or two other instances they imply that it was once free-standing. The front wall of the long, chambered or casemated tower (as last mentioned) is described as being built of roughly squared, quarry-picked blocks with comb-picked edges, laid on rubble foundations; and in the size of the blocks as well as their bond it corresponds with our first build, differing only in the use of the comb-pick and of mortar for setting the stones.⁷ Again, the northernmost buttress of the wall across the valley (*L 2*, *M 2*) is described as being built of such roughly squared, quarry-picked blocks, not in the lowest courses, which might be foundations, but at the outer angle 'where bossed stones would be expected if anywhere',⁸ so implying that this, too, may have been free-standing work *in situ*. Yet again, it appears that the gateway at the south end of that wall (inside *D 2*) was in its first form anterior to the erection of the main wall (at

¹ *Ibid.*, pp. 39, 84, 86, with General Plans, nos. 1 and 2. In front of it at *C 2* were whole cooking pots of our type 2 (Fig. 14 (p. 145 above), *ibid.*, p. 261 and Pl. XXV, 2).

² *Ibid.*, pp. 98, 105, 112, with Pl. XII, facing p. 99.

³ *Ibid.*, p. 117 and Pl. XIV facing.

⁴ *Ibid.*, pp. 93-6, with Pl. XI, facing p. 93; pp. 103-4, 106-7, with Pl. XII, facing p. 103.

⁵ *Ibid.*, pp. 30-1, with Pl. IV, facing p. 29, and Pl. V, facing p. 35; see 'specimen at *d*'.

⁶ *Ibid.*, Pl. IV, facing p. 29, at *d-e-f*.

⁷ *Ibid.*, pp. 35-6, with Pl. V facing, see 'specimen at *i-j*', and cf. the re-use of similar blocks in the back wall along with others as from our second build, 'specimen at *o-k*'.

⁸ *Ibid.*, p. 106.

C 2) which resembles our second build, but no more than a jamb stone was discovered.¹ Isolated as these instances are, yet they suggest that a city wall of the style of our first build, Early Hellenistic or Maccabean, ran from the western hill to the Pool of Siloam prior to the erection of the almost continuous line characterized by masonry similar to our second and third build.

What seems reasonably certain is that the ashlar building, which gives the trace of that southern sector from the southern edge of the western hill down to the southern tip of the eastern, must be contemporary with our second and third build, that is to say, it was erected towards the end of the second century B.C., or early in the first century, under John Hyrcanus or Alexander Jannaeus, and then restored or improved towards the end of the first century B.C. by Herod or his successors. The only earlier work emerges in those portions here and there which are not unlike our first build,¹ and, so far as such crude construction can be compared, these may date from the time of the Maccabean brothers or from earlier in the Hellenistic period. On all grounds it seems most unlikely that any of this line can be as old as the time of the Kings, as the authors supposed.² As in the Citadel, there was pottery of those earlier centuries.³ Much the same mixture has been obtained from the filling of one of the cisterns behind the rock scarp at Bishop Gobat School.⁴ But while the pottery would go to show that the western hill was inhabited at least towards the end of the Monarchy, it has still to be established that it was fortified then, for no well-dated masonry of that period has yet come to light.

II. *Intermediate Occupations: Roman, Byzantine, Islamic*

(a) *Roman occupation and extension of the city wall*

Whether the final reconstruction of the Jewish city wall, the fourth build, be Jewish or Roman work (p. 148 above), there can be no doubt that this elbow of the city wall covered part of the Roman cantonment, for a part of one of the legionary buildings survives on the inside of the wall, between the back of the middle tower and the existing east tower (see plan, Fig. 23, after p. 162). Scarcely more than the foundations remain, razed to a lower level on the east than on the north and west, being presumably part of a barrack-building stretching southwards; see Pl. LVI, 1, which shows that area much as we found it as the result of previous clearances. Of a contemporary floor there was no trace, for the remains of paving seen within the angle, between the two pits, belong to a subsequent occupation on a different axis, alining with the measuring rod. However, the building can be dated from the piped drain seen on this side of the near wall. It was laid in red earth that reached undisturbed to the wall, and it lay sufficiently below the top remaining course, which is the second building course, to have been covered by the contemporary

¹ *Excavations at Jerusalem, 1894-1897*, pp. 88-92, with Pl. X.

² *Ibid.*, pp. 319-22.

³ *Ibid.*, chap. VII, pp. 260 ff., notably Pls. XXV, 1, 3; XXVII, 32, 33, 47, 50, and possibly some of the burnished ware mentioned on p. 265.

⁴ In 1939-40, during erection of new classrooms in front of and east of the long rock-cut tower base at the middle of the plan opposite p. 394 of the 'Jerusalem' volume of the *Memoirs of the Survey of Western Palestine*; see also pp. 393 ff. At the same time the south-west angle of the tower base was proved in excavations for a bath furnace at the west end of the classrooms, at the south-west of 'Broken Cistern' on the plan.

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ground-level. The pipes are of good red pottery, each with sharp shoulder and slightly tapering neck to fit the splayed opening of the next,¹ and several are impressed with the stamp of the Tenth Legion, Fretensis, Fig. 17. The foundations themselves, as could be seen in the larger pit, are made up of re-used material, mostly building-stones cut down

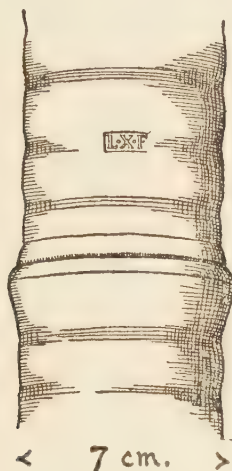


FIG. 17

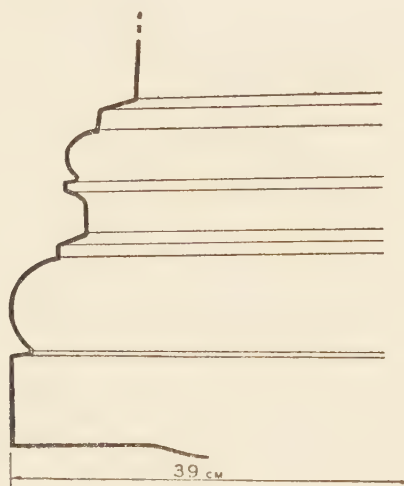


FIG. 18

and laid like bricks on their broadest bed, often the old face or back, and thus in small courses, each set back a little until the building line is reached some 2 m. from the bottom; and in the double west wall they include parts of columns and the base of white limestone shown in Fig. 18 (see *in situ* at the right edge of the photograph, Pl. LVI, 1). Such is the architectural debris the Roman devastation would have produced, and the same event would account for the depth of accumulation which exists: see the section, Fig. 15 facing p. 148, where the level of the third Jewish or Herodian build is probably represented by the line of masonry beneath the corbelled chamber (p. 147 above),² the chamber having been built together with the foundations, or later, with its man-hole alongside them. We did not sample the contents of that accumulation or relate it with the foundations, but from the relation between the foundations and the piped drain it seems clear enough that they were alike the work of the legion who established their quarters in the ruins of Herod's upper palace when the city fell (A.D. 70-1).³

While that part of the city wall which stretched southwards from the tower Phasael was maintained to protect the cantonment,⁴ somewhat later in the Roman period came

¹ Like the wall pipes of medieval times, *QDAP*, Vol. VIII, p. 126, Fig. 4, but of smaller bore and with a longer neck for insertion. Cf. photograph in *PEQ*, April 1940, Pl. VIII, 2; other Roman examples in *QDAP*, Vol. X, p. 49, Fig. 23, nos. 23, 30.

² At nearly the same level, about 5 m. above rock, a marked layer of debris indicated the level contemporary with the wall of Herodian style found at the north side of Christ Church compound, see above, p. 124, and *Revue biblique*, 1902, pp. 109 ff.

³ This being the situation of their quarters implied by Josephus, *Wars*, VI, ix, 1; VII, i, 1-2. A dedicatory inscription set up by the Tenth Legion c. A.D. 200 comes from nearby, see p. 157, n. 4.

⁴ Likewise the trace of the old wall east of Phasael may have been utilized for the northern rampart of the cantonment, see above, p. 125.

an extension of the city wall northwards from Phasael on the line of the existing curtain north of the tower base, 14 on plan, Fig. 23, after p. 162. As may be seen from Pl. XLVIII, 1, this wall embodies several phases of building, the first of which, the Roman, probably consists of the four large courses at the foot; as seen in the photographs, *ibid.*, 1 and 2, they are cleared to their contemporary ground-level, a clearance made by enlarging a previous pit beside the tower base on the right by stripping off the layers already intersected there. Fig. 19, a sketch-diagram, combines the section so obtained down to

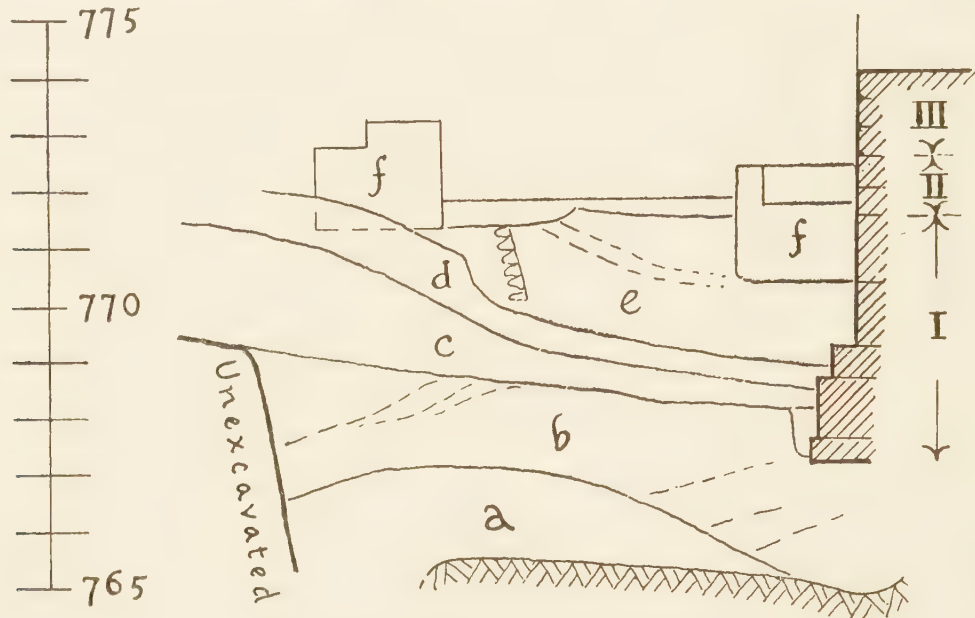


FIG. 19. Section against north-east curtain (14 on plan).

that level with that previously exposed below that level 2.5 m. in front, the two meeting at the line common to (b) and (c). From the edge of a small foundation cutting against the first large course that surface receded almost level, as the result of an extensive ancient clearance that was also apparent in our connected trench to the west of the tower, where it ended in a steep slope as shown on the plan, Fig. 23. This slope turned through a right angle from north-east to north-west to run in line with the north-western side of the tower, and it must have exposed the south-western angle of the base down to that level, since the same horizontal surface was seen to meet the angle in the section exposed at that end of the old pit alongside the tower base, see Fig. 5, p. 127, left-hand section at surface of (f). That is to say, in the angle formed by the side of the tower and the new wall a large and deep clearance must have taken place, reaching a depth of 4 m. below the Herodian level and extending 14 m. from the wall, with which it may have run more or less parallel like a protecting ditch. That it was artificial was evident from the break in stratification and likewise from the contrasting deposits below and above the break, whether in the section at right angles to the tower base (Fig. 5) or in the long section at right angles to the new wall.

In the latter, Fig. 19, (b) is tipped rubble, mostly field stones, being part of the filling

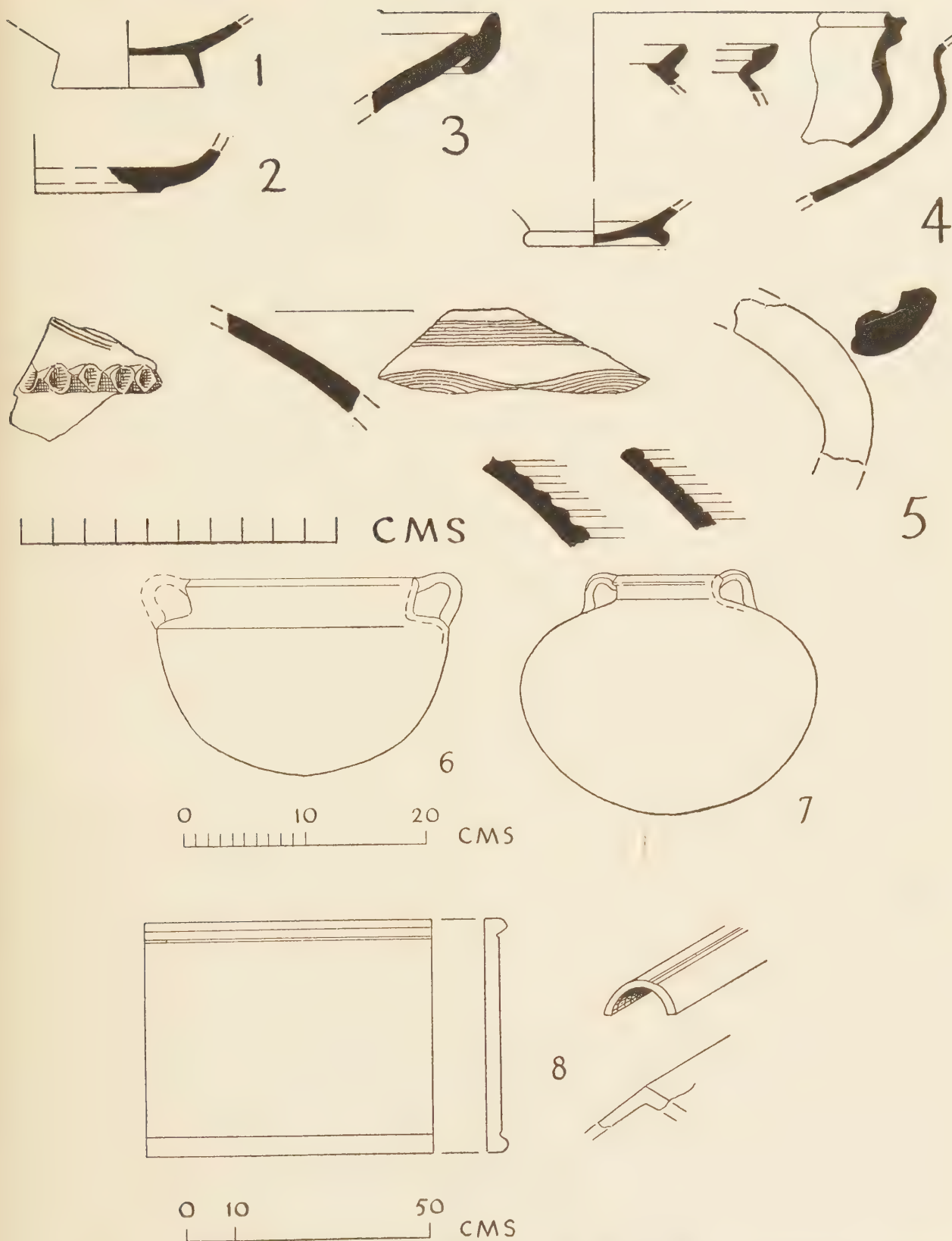


FIG. 20. Pottery types from footings of south ancient tower, 1-2 (p. 149), and north-east curtain, 3-5 (p. 156): cooking pots, 6, from Bishop Gobat school, 7, from stepped tank (p. 158): roof tiles, 8, from foot of north-east curtain.

thrown against the tower as building proceeded, with sherds of those types which accompanied the third Jewish, or Herodian build in the curtain (p. 144). By contrast, the subsequent deposits (*c*) were predominantly of clean red field earth, containing a few sherds of those types but chiefly introducing such Roman types as are shown in Fig. 20, nos. 3-5, 8. All are taken from low in (*c*), towards the foot of the wall.¹ The most distinctive are the bowl fragments, viz. no. 3 from a large bowl of plain red ware, and no. 4 from smaller bowls of thinner, smoother ware with matt red or brown wash over rouletted decoration. Pl. LVII, 13-17, are examples of this decoration; 18-22 are moulded lamp sherds from the same level. Jar fragments, Fig. 20, 5, mostly were sharply ribbed, but some were of smooth ware with combing to which applied decoration was sometimes added. Roof-tile fragments, Fig. 20, 8, were very numerous from the bottom of (*c*) upwards; flat or curved, they were of standard make² and bore the stamp of the Tenth Legion, as on the drain pipes found *in situ* inside the city wall (p. 152, above, and Fig. 17). As the legion remained in garrison until the beginning of the third century it may have been some time later that the tiles came to be discarded. Apart from coins of Late Jewish type, there were a few coins of Roman fabric, but only one could be identified, a Greek coin of Caesarea of the reign of Marcus Aurelius (A.D. 161-80) which was found low in (*c*). The lower contents of (*c*), as a whole, with the rouletted and other ware illustrated, go to show that deposition began late in the third or early in the fourth century.³ The erection of the wall need not have been quite as late as this yet it can hardly have been very much earlier, granting that deposit (*c*) began to accumulate almost as soon as the levelling was finished and the building begun, as is usual in such cases.

How many courses of the existing curtain that original build comprised was not apparent from the section, Fig. 19, since the upper stratification was interrupted by a deep intrusive cutting for the adjacent foundations (*f*) of the Crusader period. But that it consisted of the first four large courses seems certain when they are compared with the similar masonry to be seen at places at the foot of the northern wall of Jerusalem, at which soundings conducted by the Department have produced fuller evidence for identifying and dating the original work.⁴ There, in the curtains at least, it could be distinguished from the superimposed work in smaller masonry on the evidence of the secondary foundation cuttings which accompanied the latter.⁵ The original work at the foot is very like ours, both in scale and in appearance; there is the same backsetting of the first two or three courses, the same use of flat ashlar alongside panelled stones. A few of the latter are probably re-used Herodian stones, since the panel is worked with the point-pick

¹ A full, illustrated record of the pottery types and list of associated coins from the rest of this and the overlying deposits of the sounding (M-7) is in the Palestine Archaeological Museum.

² For their use see R. Cagnat and V. Chapot, *Manuel d'archéologie romaine*, Paris, 1917-20, Vol. I, p. 14. Fragments with the groove at the end of the flange for fitting were found, though this is not shown in our restoration of the flat tile.

³ At Ophel, on the site of Roman Jerusalem, such a grouping of pottery occurred in close association with coins of the second half of the third century, see J. W. Crowfoot and G. M. Fitzgerald, *PEF Annual No. 5*, 1927, pp. 73 ff.

⁴ See *QDAP*, Vol. X, 'Excavations against the North Wall of Jerusalem, 1937-8' by R. W. Hamilton.

⁵ *Ibid.*, pp. 1-4, 7-8, 26-8, 35-6.

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and the dressing finished with the serrated comb-pick at the recessed margin and edges of the panel only, a style of dressing as typical of the best Herodian work as are the proportions of the stones.¹ Of the six panelled stones visible in our wall, four are dressed like that and one, the stone in the third course which lacks its upper margin, is certainly re-used and probably Herodian (Pl. XLVIII, 2); the other three have the regular and neatly bevelled panel though not the uniformly narrow margin of the Herodian, and are more like the majority of the panelled stones in the north wall, notably in the ancient tower at Damascus Gate, though these are combed on panel and margin alike, an over-all finish that appears only once here.² Most of the other stones have a flat combed surface like most of those in the curtains of the north wall, also those in the smaller fifth and sixth courses of our wall, but the two latter must be secondary courses by analogy with the northern curtains. For the original construction in large masonry there, the accompanying deposits indicated the same *terminus ante quem* as here; the counterpart of our (c) and of most similar content, in two soundings they could be distinguished from antecedent deposits containing mainly Late Jewish material, in the third they seemed to start from the floor of a deep and extensive initial clearance as here.³ In every respect the resemblance is so close as to lead to the conclusion that the original build here and in a large sector of the north wall must be parts of the same circuit, erected in Late Roman or Early Byzantine times.

The extension of the ancient city wall from the base of Phasaël northwards on the line of the north-east curtain would coincide closely enough with a longer run of similar wall found a little to the north in 1885, during the erection of the large hotel building situated on the street which borders the north ditch. A massive wall consisting of two or three courses of very large stones was uncovered on the west side of a lane which ran almost in line with the north-east curtain and is now the street which bounds the hotel building on the east. To the east there were large displaced stones, some of which were bevelled. Those seen *in situ* 'were of the same size and character in every way as the largest of the stones in the Tower of David opposite'.⁴ That is to say, they compared closely with the large stones in the upper courses of the tower base, the only courses then visible (Pl. XLVII, 1 and 3). The term 'bevelled' might apply to panelled stones resembling some of those. But it could more aptly be used of stones like those in the Roman courses of the adjacent curtain, that is, those in the first, third, and fourth courses, whether re-used Herodian stones or new ones; and in height, if not in length, these measure nearly as much as those in the tower base (Pl. XLVIII, 2). Conceivably, then, the wall on the hotel

¹ *Ibid.*, pp. 6, 19, 26, 36.

² *Ibid.*, pp. 6-8.

³ *Ibid.*, pp. 29 ff., 43 ff., and 9 ff. with 19-20. The pottery is illustrated and described much more fully than is possible here, but it is worth noting that, from close acquaintance with each other's work, Mr. Hamilton and I were both impressed with the strong similarity of the sherds as they were brought to light.

⁴ Selah Merrill in *PEFQSt.*, 1886, pp. 21-4 with plan. It is marked on the 'General plan of Jerusalem illustrating recent discoveries' in G. Adam Smith's *Jerusalem*, Vol. I (in end pocket) or in his *Historical Atlas of the Holy Land*. The hotel is the pinnacled building marked as the 'Citadel Hotel' in the air photograph illustrating the first report, Pl. LXVIII, 2, in *Quarterly*, Vol. V; also in *PEQ*, 1940, Pl. V, 1. Its left-hand or east side runs on the line of the ancient wall. An inscribed column found near here, dedicated in Latin to the Legate Junius Maximus, of the Tenth Legion, stands in the passage beneath the hotel, see Vincent and Abel, *Jérusalem nouvelle*, Vol. II, p. 891; Hanauer, *Walks about Jerusalem*, p. 42.

site resembled, rather, the Roman courses of the curtain which have since come to light. Any connexion between the two would have been removed in the excavation of the present ditch, for on clearing the intervening part we found the flat surface of the virgin rock at almost the same level as at the base of the tower, which is 2 m. lower than the footings of the curtain (cf. Fig. 1, ii, facing p. 121, with Fig. 11, facing p. 140). From that and other soundings in the ditch to the east and west it is clear that the rock saddle occurs just where the connexion would have been, as the rock runs level for a few metres there before falling into the valleys on the east and west (see site plan, Fig. 3, p. 124). It would have been the best line for a fortification to follow, and it has been proposed as a possible line for the commencement of the wall which enclosed the first northern extension of the Jewish city, the 'Second Wall' of Josephus, the west end of which connected with the 'First Wall' on which the tower Phasaël stood.¹ But that the wall on the hotel site was part of that 'Second Wall' no longer seems at all likely. Alining as closely as it does on the Roman wall abutting the north side of the base of Phasaël, it has its place rather in the new Roman circuit of the third or fourth century, which stretched northwards to enclose the northern half of the present walled area and, except on the west, has since determined the course of the surrounding wall in that direction.

(b) *Byzantine and Early Islamic to Crusader*

With the addition of the Roman city wall to the north, Herod's great tower takes its place on a continuous western wall, as it is shown in the Crusader maps (e.g. the Cambrai map from which Fig. 24*d* on p. 165 is taken). Instead of commanding a turn in the wall, as it was designed to do, it now stood at an awkward re-entrant (see site plan, Fig. 3, p. 124), and this angle naturally filled up with debris, as was shown by our sections along the two outer faces of the tower on the north-west and south-west. In the former, Fig. 19, p. 154, the stages *d*, *e*, *f* correspond to those broadly entitled 'Byzantine', 'Islamic', 'Crusader' in the latter section, Fig. 11, facing p. 140. On the still-existing bank of Jewish debris outside the ancient city wall farther south, the corresponding deposits were much slighter and have been more interrupted by later construction converging upon the wall. But a small stepped tank of an intermediate period remains in front of the south curtain near *G*, see plan, Fig. 23, after p. 162; the cooking pot shown on Fig. 20, 7, is typical of several which were found in the silt at the bottom and which indicate that the tank fell out of use in the Late Roman or Early Byzantine period.² The level of its surround nearly coincides with the top of the Islamic foundations seen in Fig. 11, facing p. 140, which apparently extended the whole length of the north curtain (see below, p. 160). Apart from these, the bank in front of the city wall remained clear of building until Crusader times.

¹ *Wars*, V, iv, 2. At this end it started from a gate called Gennath, the position of which is unknown but was presumably some distance to the east; the other end was at the Antonia, Herod's citadel north-west of the Temple. Starting to the east of the saddle, it would have crossed a reverse slope, but as Capt. C. T. Norris points out in *PEQ*, 1946, pp. 19-37, it could have been fully covered on this side by stone-throwing artillery mounted on the commanding towers of Herod's Upper Palace and at the other end from the towers of the Antonia likewise.

² A type which occurred at such levels in soundings *A*, *B*, and *C* at the north wall of Jerusalem, *QDAP*, Vol. X, pp. 9-10, Fig. 6 (9); pp. 29-30, Fig. 14 (7); p. 44, Fig. 20 (4).

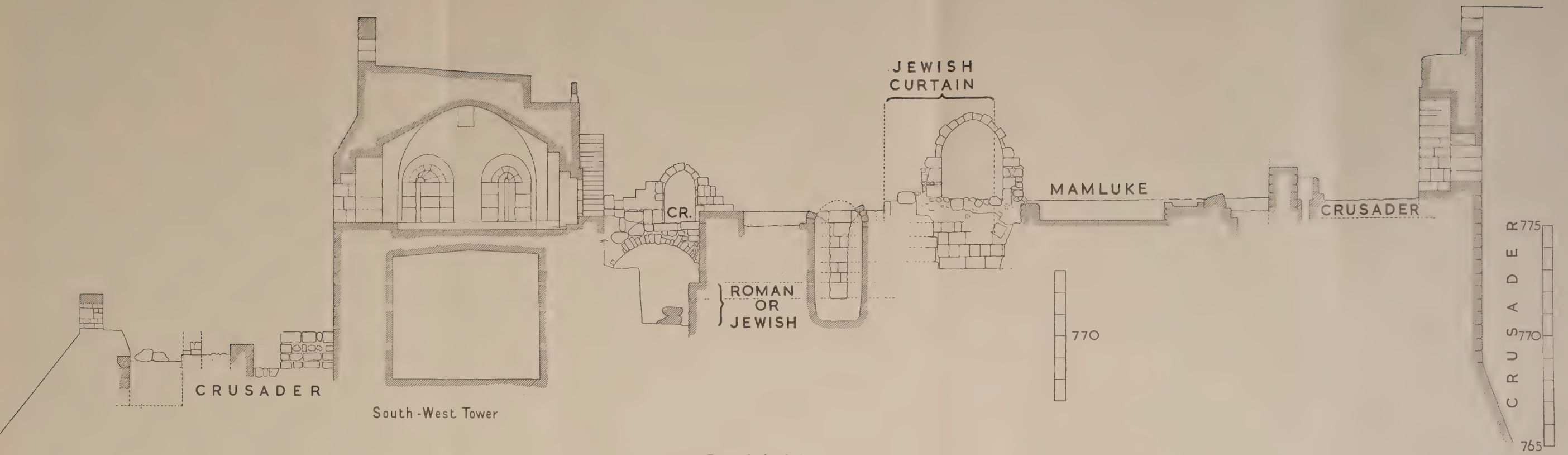


FIG. 21. Section Z-Z

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Within the ancient city wall the building level rose higher until by Crusader times it attained almost the existing upper level in the courtyard, that is, almost the level of the main entrance and the platform at the south-east (Pl. LI, 1 and LV, 1; cf. section in Fig. 15 after p. 148). But the heavy foundations of the vaulted quarters of Crusader and later times which clustered here (Pl. LXI), with their cisterns, cellars, and underground passages, deeply penetrated the intermediate levels and cut them up. So much could be seen from the intervening excavation in which Roman foundations lay exposed with secondary building remains at the same level (p. 152); the latter included a Crusader basement floor alongside the footings of the tower at the east. Of the succession of building levels which this excavation must have intersected, our only evidence was in the sections exposed to the north and south.¹

In either section only one intermediate level could be distinguished, at less than a metre above the top of the Roman foundations (see the section looking north in Fig. 15, facing p. 148). By enlarging the previous clearance to the north, we found the remnant of a range of small rooms at this level, those marked 'Byzantine' on the plan, Fig. 23, after p. 162. They were poorly built and were roofed with tiles, to judge from the many fallen tiles among the ruins; and these were as large and as heavy as the Roman, and of similar form and ware, though unstamped. The floors had remains of plain white mosaic, rather large and coarse, which resembled a floor found only a little lower on the south side of the clearance, on an east-west axis, the only vestige of the level on that side owing to heavy intrusive foundations of later date. A group of complete pots found on one of the floors at the north, Fig. 22, Nos. 1-4 on p. 161, the bowl being glazed sea-green daubed with bright blue and dull violet, indicate that this occupation terminated not earlier than the late eighth century A.D.² These humble structures look like monastic work, and may well have belonged to one of the several communities of monks who are known to have settled in the fifth century near the 'Tower of David', the name by which the Herodian tower of the Citadel became known in Christian tradition.³

Another relic of this monastic period is the inscribed stone, Pl. LVIII, 1, built upside down into a party wall in a ruined Crusader range at the west of the south-west tower (Pl. LIX, 2, at far end beyond trees; south of V on plan, Fig. 25, p. 168). It reads:

· ·	ⲓ̅	[	cross	]	ⲬⲚⲃⲁ	· ·
· ·	ⲁ	[	cross	]	ϭⲓⲕⲉⲩⲓ	· ·
for:	· ·	ⲓ̅ⲛⲓⲟⲩⲱⲥ		Ⲭⲣⲓⲱⲥⲟⲥ	ⲃⲁ	· ·
	· ·	(ⲃ)ⲁ		ⲥⲓⲕⲉⲩⲉⲓ	· ·	

¹ Unfortunately there is no record of the intervening clearance, since it was done as relief work shortly after the British occupation of 1917.

² Nos. 1, 3, and 4 are typical of the first reoccupation of the ruined 'Umayyad palace at Khirbat el Mafjar near Jericho, after the earthquake of 746, see *QDAP*, Vol. X, pp. 65 ff., especially Fig. 5, 1 with p. 67, Fig. II, 1 with p. 70, and p. 73 on lamps of group 3, summary on p. 74.

³ See Vincent and Abel, *Jérusalem nouvelle*, Vol. II, p. 911. St. Saba eventually bought the monks' cells beneath the tower in order to build a hospice for his monks, an institution that remained until Crusading times. See also *QDAP*, Vol. IV, pp. 78, 80, for an inscription mentioning a Georgian monastery of the sixth century 'in the Tower of David', meaning perhaps the northern part of Mount Sion.

on either side of an incised Byzantine cross, and is probably the middle part of a door lintel from one of the neighbouring monasteries.¹

In the long catalogue of churches and public buildings which called for restoration after the Persian sack of A.D. 614, the 'Tower of David' is mentioned in close conjunction with another, perhaps neighbouring building called the 'Palace of the Governors'.² Again, towards the end of the first century of Moslem rule, in papyri found in Egypt which contain building accounts relating to work on 'the mosque of Jerusalem', i.e. the Aqsa, work on the 'palace of the Commander of the Faithful' is mentioned also.³ It may well be a portion of this building which we have found in the segment of a round tower with attached curtain, Pl. LVI, 2, at the south end of the courtyard, marked 'Islamic' on plan, Fig. 23, after p. 162. Its foundation level nearly coincides with that of the Byzantine buildings at the north just described, but its round tower is so reminiscent of the drum towers which the 'Umayyad builders affected in imitation of the Roman at several desert palaces of the early eighth century that it may well belong to the Caliph's residence mentioned in the papyri. Presumably it would have been built within the line of the still-existing Jewish city wall, and would have extended east and north, but no more of it could be found without extensive clearance of the heavy Crusader foundations. However, in the fosse in the south and at other points, there were fragments of stone window grilles, made up of pieces cut to an interlacing pattern on a hexagonal basis, a design which likewise recalls 'Umayyad work.⁴

That the site remained under occupation throughout the next three centuries of Arab rule seems likely from the steady accumulation of debris outside the city wall, as observed in the sections at the north end of the courtyard (see especially the section in the trench, Fig. 11, facing p. 140). To this period belong the massive foundations marked 'Islamic' in the section, here seen near their eastern end, as they were less deep on this side of the trench than on the near side. They extended almost as far as the former middle tower to judge from a platform of similar rubble work at the same level which came to an end just short of the presumed line of the north-east side of the tower. If continuous they would have formed a single mass of foundations extending from the corner of one ancient tower to the next, parallel with the curtain, but at neither end was there any superstructure. Their period is inferred from their sherd content on the one hand, and on the other from the contents of overlying deposits, particularly a cindery rubbish heap next above the part intersected by the main trench. This contained bowl fragments of white-glazed,

¹ Cf. the inscribed lintel still in position above the doorway to the monastic cell, Khirbat ed-Deir, on the hill above 'Ein el Ma'mudiyya (between Hebron and Gaza), where a ruined monastery of the period has recently been discovered, *Revue biblique*, 1946, pp. 559 ff., and Pl. VIII, 1.

² αὐλὴ τῶν ἡγεμόνων, after a conjectural reading of the document called 'The Taking of Jerusalem', Vincent and Abel, *op. cit.*, pp. 928-9. For ἡγεμονία, meaning 'the Government', see a fourth-century Egyptian papyrus, Grenfell and Hunt, *Greek Papyri*, Series II (Oxford 1897), No. 73.

³ Quoted by K. A. C. Cresswell, *Early Moslem Architecture*, Vol. II, p. 119, from Bell, *Greek Papyri in the British Museum*, e.g. No. 1403, pp. 75-6, . . . τῆς αὐλῆς τοῦ Ἀμιράλουμνιν.

⁴ As found at Kh. el Mafjar in both stone and plaster, e.g. *QDAP*, Vol. XII, p. 12 and Pl. VII; also the plan of the residential block there, Vol. X, facing p. 65 or 153, as an example of the use of ornamental drum towers at the angles and sides of the enclosure.

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sandy-yellow ware, Fig. 22, 5 *b* and *c*, with traces of rudimentary design in brownish, decayed lustre; similar sherds of good turquoise-blue glaze and poor grass-green glaze, the body usually sandy but sometimes red, as the specimen, Fig. 22, 5 *a*; yellow-glazed slipware with red body; brown-glazed cooking ware in shapes resembling Fig. 22, 6, and unglazed ware painted matt in dark brown on buff, the last a native style that has

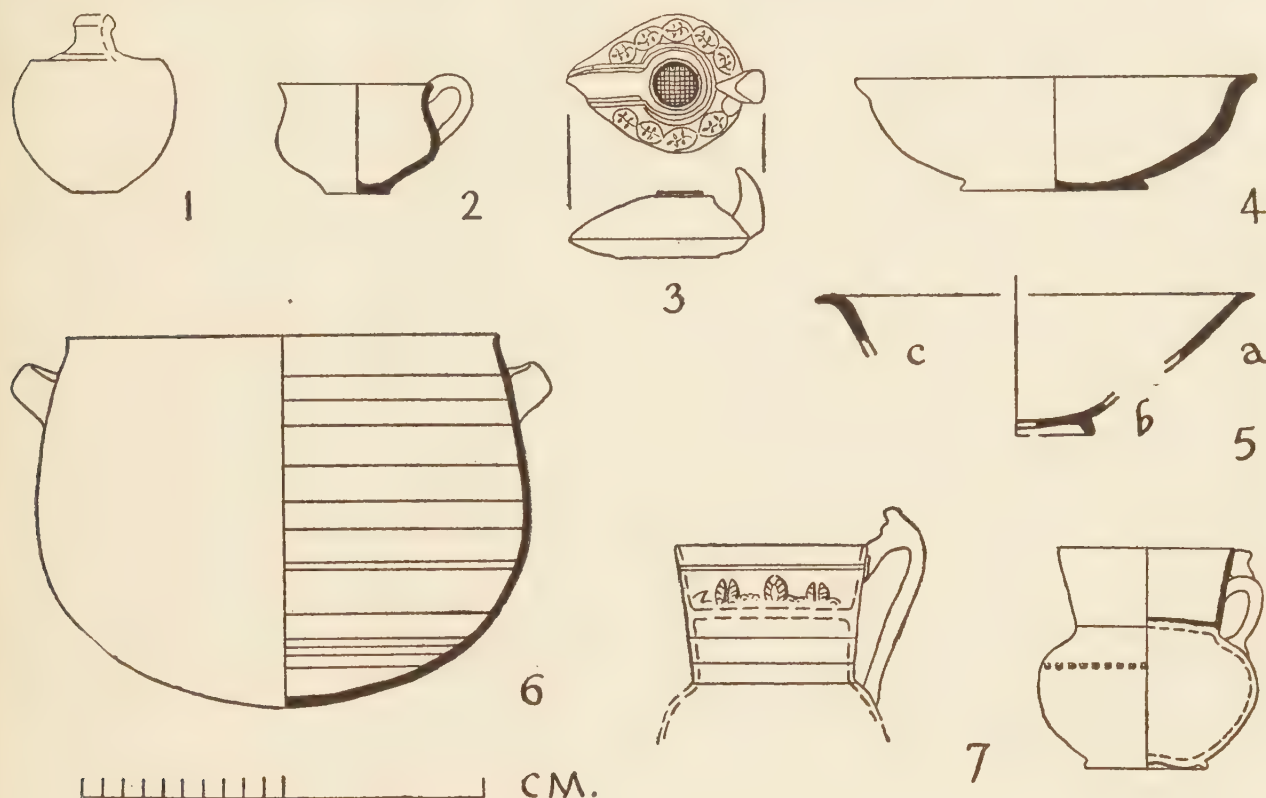


FIG. 22. Pottery types, Early Islamic (for nos. 1-4, see p. 159).

persisted ever since.¹ There were also some fragments of Chinese stoneware, white or faintly greenish, belonging to a tea-pot lid, Pl. LXII, 1, and wooden rosary beads of the shapes shown in Pl. LXII, 2. A clipping from an Abbasid gold dinar of the ninth or tenth century gives the earliest possible date for this deposit, a dating that would fit both the lustre ware and the stoneware.² To this presumptive evidence for continued occupation within the city wall may be added that of pottery obtained from a cess-pit intrusive in the Roman level near the middle tower (the larger pit seen in Pl. LVI, 1), e.g. Fig. 22, No. 6, a brown-glazed cooking pot, and No. 7, moulded water pots of soft

¹ See the post-Crusader examples from the suburb at 'Atlit, *Ibid.*, Vol. V, Pl. XXVIII.

² If the lustre ware be Mesopotamian rather than Egyptian, as at El Mina in North Syria, see A. Lane, *Archaeologia*, Vol. LXXXVII (1938), pp. 28 ff. I have not compared it with actual specimens. If Egyptian ware it might be of the eleventh century, though not later than the Crusader invasion of 1099. For the stoneware the tenth or eleventh century is possible if celadon from Yüeh Chou, as Mr. Arthur Lane suggests from the photograph and from its frequency at Fustat. Cf. R. L. Hobson, *British Museum Handbook of the Pottery and Porcelain of the Far East* (London, 1948), p. 17.

greenish ware with fretted filters.¹ These would bring the occupation almost down to the beginning of Crusader times.

To this intermediate period probably belong the three courses of ashlar masonry seen above the large courses of Roman work in the north-east curtain, that is, in the extension of the city wall on the north of the Herodian tower base (Pl. XLVIII, 1 and 2). They contrast not only with the courses below, but also with the rough, wide-jointed rubble around the Crusader doorway above. In the sounding made near the tower base, Fig. 19, p. 154, the deep Crusader foundations at (f) were seen to butt against them, and in another small sounding towards the other end of the curtain, Crusader burials with pilgrim scallop-shells, Pl. LXII, 3, crosses and coins of the early thirteenth century, lay against them. In neither sounding were they related with any ground surface, for, as may be seen in the long section, Fig. 19, the Byzantine–Early Islamic deposits (d) and (e) do not rise quite as high. Yet these three courses much resemble the secondary construction at various points along the north wall of the city, at two of which the pre-existing or contemporary deposits contained Early Islamic material.²

It is towards the close of this intermediate period, it seems, that the Herodian tower becomes the great tower of a citadel as the army of the First Crusade found it. In 893 the Anglo-Saxon Saewulf notes that David's Gate, the western gate by which pilgrims entered the city, was 'beneath King David's citadel' (*sub arce David regis*). In Moslem eyes this was the prophet David's praying-place (*mihirāb*).³ Two geographers of the tenth century describe it in terms which fit the ancient base of Phasaël, thus:

'A tall edifice built of stone, which, by measurement and calculation, I should say reached a height of 50 ells and was 30 ells in the breadth. On its summit is a building like a cell which is the *Mihirāb*. . . . When you come up to the Holy City from Ar-Ramlah, this is the first building which catches the eye, and you see it above the other houses of the town.'⁴

A castle is first mentioned as such by another geographer, a native of Jerusalem, who wrote in 985:

'Over the city is a castle, one side of which is against [*or on*] the hillside, while the other is defended by a ditch.'⁵

He goes on to mention the 'Gate of David's Praying-place' among the city gates, but not the tower of that name. Yet his statement about the castle would apply not inaptly to one of which the old Jewish city wall adjacent to the tower formed the outer side, while

¹ The latter of the ninth and tenth centuries at El Mina, A. Lane, *op. cit.*, p. 38; possibly lasting longer at Kh. el Mafjar, *QDAP*, Vol. X, Fig. 14, p. 99, with pp. 71, 74.

² See *ibid.*, Pls. I, 1, VIII, IX, for similar masonry. At soundings A and B this proved to be Early Islamic, cf. the sections on pp. 3 and 27 with the material listed on pp. 18–19 and 34, but at sounding C a construction trench contained Mamluke coins of the fourteenth century, cf. Fig. 18, facing p. 39 and pp. 45, 51–2.

³ In allusion to the story of the two pleaders who climbed the wall of his *mihirāb*, Qu'ran XXXVIII, 20, which the commentators explain by the King's habit of devoting days to doing justice or preaching in public and others to praying apart. To-day the tradition attaches rather to the south-west tower with its mosque and minaret.

⁴ Istakhri, in 951, and Ibn Haukal, 978, transl. G. Le Strange, *Palestine under the Moslems* (London, 1890), p. 213.

⁵ Al Muqaddasi, transl. G. Le Strange, *ibid.* The Arabic reads: '*alaiha ḥuṣnun ba'dhuhu 'ala jabalīn wa 'ala baqīyyatihi khandaqun*', ed. De Goeje, *Bibliotheca Geographica Arabica*, Part III (Leiden, 1877, 1906), p. 167.

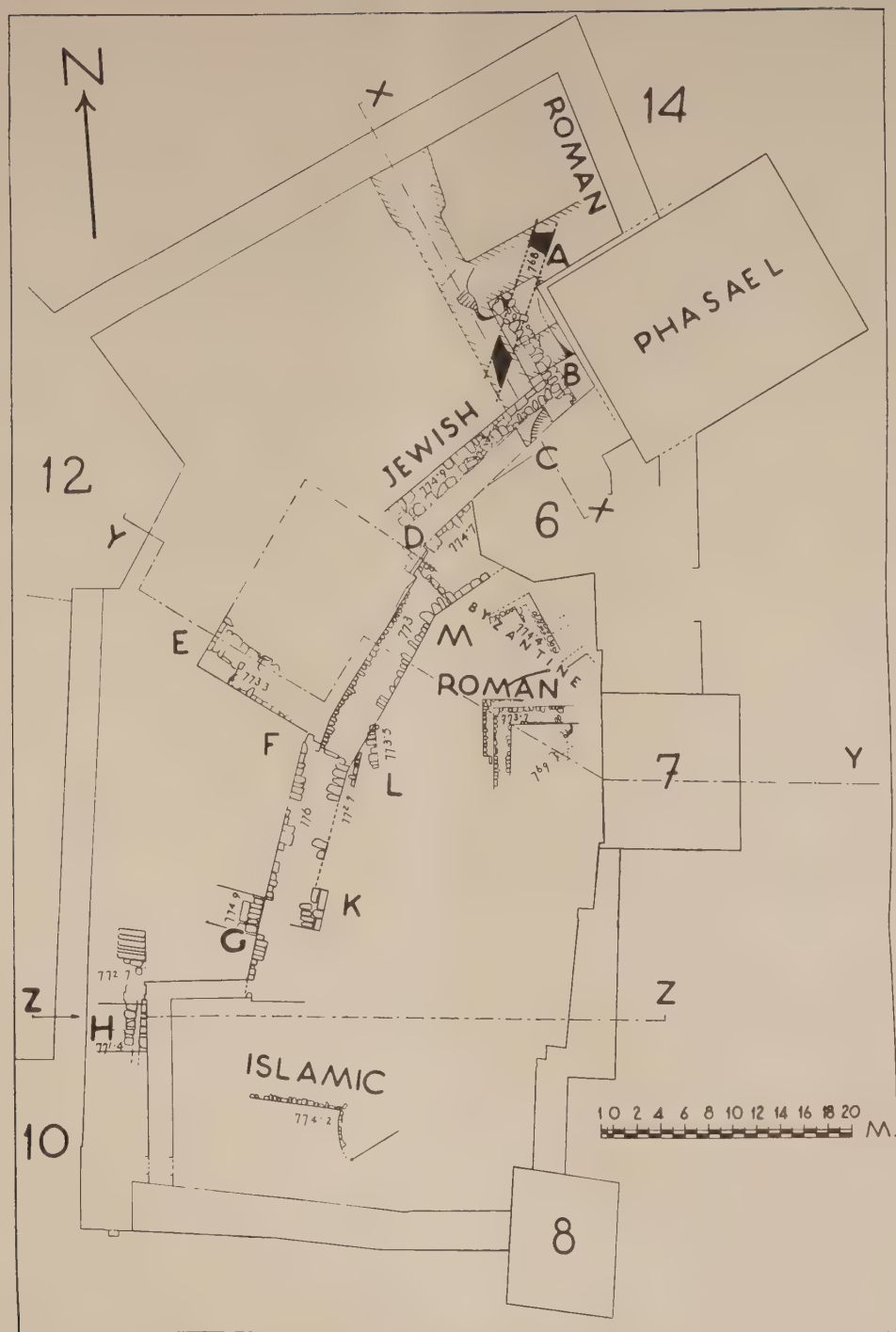


FIG. 23. The Citadel courtyard showing remains of the ancient Jewish city wall, A-H, K-M, and other discoveries

the inner consisted of new fortifications on the trace of that part of the existing ring-wall which lies east of the ancient line. As much has to be postulated in view of the explicit statements made by Frankish chroniclers of the First Crusade, that the massively built 'Tower of David' on the west side of the city constituted the citadel, and that it served not only as the headquarters of an emir, doubtless the Fatimid commander himself, but also as a refuge for several hundred of the citizens or garrison, who agreed to surrender it in return for a safe-conduct for themselves and their families.¹ The actual evidence for the extent of this first castle—some large rubble work which is to be seen in the east tower and in the south front towards the south-west tower—will be described along with the more obvious vestiges of Crusader work embodied in the present building (see below, pp. 173–88, especially pp. 176, 179).

III. *The Existing Castle and its Predecessor, Arab and Crusader*

(a) *The Tower of David during the Crusades*

Under the Crusaders (1099–1187) the Tower of David—'Arx David, scilicet totius regni Judaici caput', as a chronicler of the First Crusade calls it²—was both citadel and royal residence. At the capture of the city it was surrendered to Count Raymond of Toulouse who had attacked from the south; but as soon as Godfrey de Bouillon was elected ruler he laid claim to it, because of its strength and commanding position:

'Situated on the higher part of the city on the west, and built of huge squared stones, it overlooked the whole city.'

Having obtained possession of it, he granted and bequeathed it to the new Patriarch of Jerusalem, Daimbert of Pisa, along with the rest of the city and one-quarter of the port of Jaffa. Nevertheless, when Godfrey died, his kinsman Garnier de Gray seized the citadel and refused to yield it except to Godfrey's brother Baldwin, Count of Edessa; even after the sudden death of Garnier it was held, in defiance of Tancred, Prince of Galilee, as well as the Patriarch, until Baldwin himself arrived to be welcomed as future king of Jerusalem.³ Henceforth it was placed under a royal officer, the 'Warden (or castellan) of the Tower of David' or 'castellan of Jerusalem'; and it was shown on the royal seal, seen as if standing above the city wall between the cupolas of the two chief shrines, the Holy Sepulchre and the Dome of the Rock (see Fig. 24, *a*, taken from the seal of Baldwin I).⁴ The dowager queen Melisande betook herself to the citadel (*in arcem*) in 1152 when her son, the young King Baldwin III, came in force to claim his inheritance; admitted to the city, he attacked the citadel with full siege apparatus—stone-throwing machines and mangonels as well as archers and cross-bowmen—but he

¹ William of Tyre, VIII, 19 and 24; IX, 3. *Anonymi Gesta Francorum*, XXXVIII, 6, ed. H. Hagenmeyer (Heidelberg, 1889–90), p. 470, also ed. L. Bréhier, *Histoire anonyme de la première croisade* (Paris, 1924), p. 204. 'Nearly 500', Fulcher of Chartres; 'around 400', Albert of Aix, *Recueil des hist. des Croisades, Occid.*, Vols. III, p. 361, IV, p. 478. Cf. III, pp. 109, 300, 515.

² Raymond of Agiles *ibid.*, Vol. III, p. 302.

³ William of Tyre, VIII, 3, IX, 3 and 16; X, 3–6. Albert of Aix, *op. cit.*, Vol. IV, pp. 531–2, who adds that Baldwin imprisoned here the Turkish prisoners he had taken on his way from Edessa.

⁴ Vincent and Abel, *Jérusalem nouvelle*, Vol. II, p. 949, with Fig. 386 at head of chapter.

could not force it and eventually gained it only by negotiation.¹ Now, it seems, it became part of the royal palace: 'it stands . . . together with the newly built solar chamber and palace which adjoins it' notes a pilgrim's handbook of about 1172;² and the 'Curia Regis' is shown against the south side of the 'Turris David' in a map of the period, see Fig. 24.³ It again served as a refuge for the citizens in 1177 when Saladin first invaded the kingdom; thinking that the king, Baldwin IV, was blockaded in Ascalon with the remnant of the army, they lost hope of defending the whole city and crowded into the Tower of David ('cives . . . in arcem quae dicitur David . . . se certatim conferrent').⁴ When Saladin took the surrender of the city ten years later, he occupied the Tower of David first and proclaimed that ransom money should be paid there.⁵

To have sheltered the Frankish townspeople in their thousands during the alarm of 1177⁶ the Tower of David must have been a larger castle than it was when the First Crusade took it in 1099, the name having been extended from the ancient tower itself to embrace the whole (as with the Tower of London). To begin with the ancient tower was practically self-contained, as the Russian abbot Daniel found it in 1106-7:

'It is curiously built in massive stone, is very high, and of square, solid, impregnable form; it is like a single stone from its base up.

'It contains plenty of water, five iron gates, and two hundred steps lead to the summit. An immense quantity of corn is stored in this tower. It is very difficult to take, and forms the main defence of the city. It is carefully guarded, and no one is allowed to enter, except under supervision.'⁷

The contemporary Latin chronicler, Fulcher of Chartres, after remarking that the massive stones of the base were laid with lead, adds that if the tower were well provisioned, fifteen or twenty men would be able to hold it against any attack.⁸ All accounts emphasize its simple solidity and its uniformly large masonry. So it is characterized, its stonework greatly exaggerated, on the seals of the Latin kings of Jerusalem from Baldwin I onwards, Fig. 24, *a*,⁹ and more schematically still upon the billon coins of Baldwin III or IV, Fig. 24, *b*;¹⁰ likewise on a plan depicting the outstanding buildings of the city, though here with the addition of battlements, Fig. 24, *c*, the circles in the parapet wall

¹ William of Tyre, XVII, 14.

² 'Sita cum adjacente solario et palatio noviter aedificato, fossatis et barbicanis valde munito', Theoderich, *De Locis Sanctis*, ed. Tobler (St. Gall-Paris, 1865), p. 8; transl. in *Library of Palestine Pilgrims Text Society*, Vol. V.

³ The Cambrai map, reproduced in *ZDPV*, Vol. XIV (1891), Pl. 4, also in Vincent and Abel, *Jérusalem nouvelle*, Vol. II, Fig. 387, p. 947. Hitherto the palace had been the 'Templum Salomonis' or 'Manoir Salomon' at the south end of the Haram where the Aqsa mosque stands, but part was given to the Knights Templar at their foundation, 1118, and the rest as their numbers grew, *ibid.*, p. 949.

⁴ William of Tyre, XXI, 21.

⁵ *Chronique d'Ernoul*, ed. L. de Mas Latrie (Paris, 1871), pp. 224-5. Thither, too, the golden cross from the Temple was dragged to be dismembered, *ibid.*, p. 234.

⁶ As an indication of their probable numbers, the contingent of serving men due from the bourgeois alone is given as 500 by the 'Livre de Jean d'Ibelin', *Recueil des hist. des Crois., Lois*, Vol. I, p. 426.

⁷ 'Abbot Daniel's Pilgrimage', p. 17, in *Library of the Palestine Pilgrims Text Society*, Vol. IV.

⁸ *Op. cit.*, Vol. III, p. 356.

⁹ See below, p. 163, n. 4.

¹⁰ From a coin in the Palestine Archaeological Museum, cf. G. Schlumberger, *Numismatique de l'Orient Latin* (Paris, 1878), p. 87

THE CITADEL, JERUSALEM

being no doubt the butt ends of columns tying the wall in familiar medieval fashion.¹ To judge from the omission of the adjacent palace, this plan would be not much later than the middle of the twelfth century. So far, it would appear, the ancient tower was still as the Arab geographers saw it two centuries before (p. 162); its sheer mass rising somewhat higher than the surviving solid base, which is only 20 m. high as compared with Daniel's 200 steps, say 35 m., and the geographers' 50 ells or 25 m., though their estimate may have been made from the bank in front which rises 7 m. above the foundations. The adjacent courtyard we have postulated (p. 163) must have seemed insignificant beside it, and is ignored.

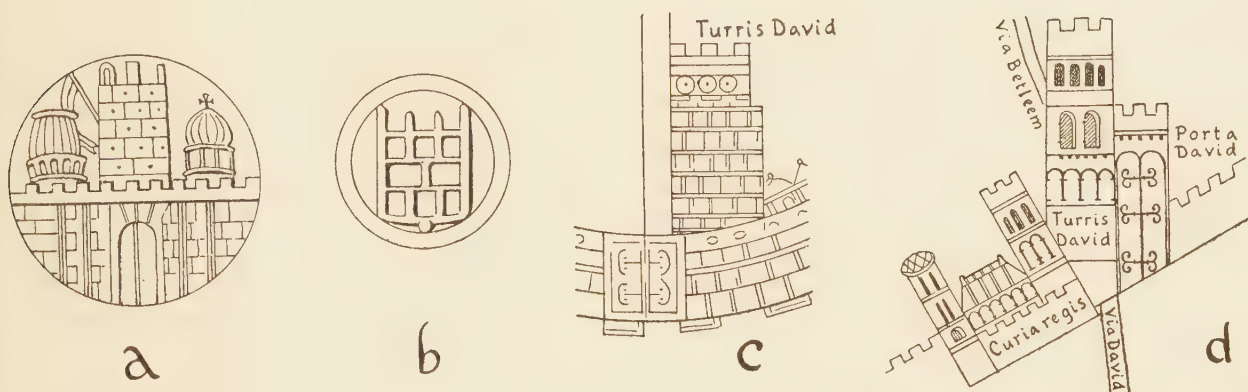


FIG. 24. The Tower of David in the twelfth century.

But by the third quarter of the twelfth century we may certainly picture an enlarged castle with the ancient tower as its great tower, much as it is to-day, though a castle of a pattern already so familiar that it called for little comment. The guide-book of 1172 which mentions the newly built solar and palace adjacent to the Tower of David adds that it 'was strongly fortified with ditches and barbicans'.² Writing about the same time and, no doubt, with the contemporary appearance of the building in mind, William of Tyre observes how the very solidly built Tower of David stands out from the whole city lying below it, like a citadel ('quasi praesidium civitatis'), with towers, curtains, and forewalls (or barbicans) joined on to it ('cum turribus, muris et antemuralibus sibi annexis').³ This last phrase introduces the usual elements of a developed castle of the time.⁴ That its defences contained the palace seems likely enough, and so it appears in the elevation decorating a plan of the city of this period, Fig. 24, *d*.⁵ Here the elevation

¹ From the Brussels plan, reproduced De Vogüé, *Les Églises de la Terre Sainte* (Paris, 1860), p. 411; J. Lelewel, *Géographie du Moyen Âge* (Brussels, 1849), atlas.

² Theoderich, *loc. cit.* (see above, p. 164, n. 2), his phrase construing with 'palace', not 'Tower of David'.

³ In his description of the city prefixed to his account of the siege of 1099, VIII, 3.

⁴ Cf. his account of the building of the castle of Montreal (Shaubaq) in 1115, XI, 26, where the parallel French text gives 'barbaquanes' for 'antemuralis'; *Recueil des hist. des Crois., Occid.*, Vol. I, p. 499; also the account of the building of the concentric castle of Safad c. 1240, 'De constructione castri Saphet', abstracted in *Recueil des textes relatifs à l'histoire de l'architecture et la condition des architectes en France au Moyen Âge*, ed. V. Mortet and P. Deschamps (Paris, 1911-29), Vol. II, CXXIV, pp. 261-4.

⁵ The Cambrai plan, see p. 164, n. 3.

of the tower itself is much more elaborate, and in the order of stories surmounting the base it curiously recalls Josephus's description of the upper part of Phasael, i.e. a pillared, open loggia of 10 cubits next above the solid base, then another smaller tower (as in the Pharos of Alexandria) which contained the living apartments and was crowned with battlements, the total height together with the base reaching 90 cubits or 41.6 m.¹ To judge from the realistic drawing of the churches and other buildings on the plan, this elevation is not an imaginative restoration of Herod's tower, even if the learned now recognized it as his.² Nor does it at all resemble the existing story (Pl. XLVII, 1), which in plan and structure is evidently a later, Moslem addition (see below, p. 175). Conceivably, then, it gives a picture of stories since destroyed which may have been partly of Crusader, partly of extant Herodian work, probably including something of the old loggia, since the height as estimated by earlier travellers was from 5 to 15 m. taller than the ancient base is to-day. The upper part was thought to be very ancient by the French chronicler who wrote of its destruction in the next century (p. 169). Yet the drawing (Fig. 24, *d*) gives much the same elevation to the smaller tower adjacent which is presumably the 'solar' belonging to the new hall or 'palace'. Probably then the upper stories of the great tower again served a like purpose, being fully open to the summer breeze as an oriental 'solar' should be.³ They would have been reached direct from the adjacent palace or 'curia' enclosed within the same defences. From the recognizable remnants of twelfth-century work to be noted in the ring-wall and towers of the present castle (pp. 173, 187), it will be seen that the Crusader castle was no less extensive (see plan and inset, Fig. 25, p. 168); on the north, east, and west its ring-wall certainly coincided with the outer limits of the present building, and on the south it perhaps extended farther to include the rest of the royal palace.

Like most of the castles captured by Saladin it was dismantled eventually: since the Crusaders kept their hold on the coast and aimed at the recovery of Jerusalem it became the policy of Saladin and his successors to deny them foothold inland by dismantling first their smaller castles, then the larger, and finally the defences of Jerusalem itself. The city wall was reluctantly but drastically destroyed by order of the Sultan of Damascus, Al Mu'adhham, to the consternation of the population (1219).⁴ Yet, by all accounts, the ancient tower remained intact, as will appear.⁵ The rest of the castle, which now comes to be distinguished from its great tower, the Tower of David proper, was still

¹ *Wars*, V, iv, 3. The remaining base is 20 m. high.

² Cf. appendix to chronicle of Robert the Monk, c. 1151-7, quoted De Vogüé, *op. cit.*, p. 432: 'Turrim quae modo David vocatur edificavit Herodes. Quam Tytus et Vespasianus urbe deleta pro signo victoriae superstitem reliquerunt.' Transl. as 'Fetellus', *PPTS*, Vol. V. This was in line with the Byzantine tradition which placed the Judgement Hall or Praetorium of Pilate here, i.e. the *Lithostratos* or *Gabbatha* of St. John, xix, 3, so the guide-book of John of Würzburg (1160-70), p. 28 in *PPTS*, Vol. V.

³ In the East always an 'upper room', in Syrian Arabic *'iliya*, Dozy, *Dict. arabe*, Vol. II, p. 500.

⁴ Abu Shama, *Raudatain*, in *Recueil des hist. des Crois., Orient.*, Vol. V, pp. 173-5; Ernoul, *op. cit.*, p. 417, who comments that the Sultan believed the Christians would then abandon the siege of Damietta, perform their pilgrimage to Jerusalem and return home.

⁵ Both Oriental and Western authorities are cited by Max van Berchem, 'Matériaux pour un Corpus Inscriptionum Arabicarum', second part, 'Syrie du Sud: Jérusalem, Ville', I, 1, in *Mémoires de l'Institut français d'archéologie orientale au Caire*, Vol. XLIII (Cairo, 1922), p. 136, n. 5.

fit to be reoccupied ten years later, after the Emperor Frederick II's treaty with the Sultan of Egypt gave the Latins access to the city once more. But that its defences were no longer in full order seems likely enough, especially from the account of the Emperor's visit in 1229, in which he gives his following to understand that the Tower of David and one of the northern gates are to be made ready for defence again.¹ The adjacent palace ('le manoir le roi qui devant le tour David est') he gave to the new Teutonic Knights ('l'Hospital des Alemans').² From what follows this can only have been part of the castle, which was again to become the refuge of the Christian population, now increased by the Latin pilgrims who came in consequence of the treaty. Resenting its terms, the Moslem peasantry attacked the pilgrims on the roads and invaded the unwallled city itself. But their first attack, shortly after the Emperor's departure, found the Christians 'well fortified'; only one, an Englishman, was killed as against 500 of the Saracens, it is said.³ Again, some 15,000 Saracens came in from the hills under their religious leaders, and the Christians, Latin and Syrian, took refuge with their families and 'best things' in the Tower of David, in an improvised fort ('en une fermeté qu'on i avait faite'), in which they stayed until a relieving force arrived from Acre on the third day.⁴ That building went on around the Tower of David during the rest of the ten-year truce the Moslem writers assert and the Christian admit, the former alleging that it was in disregard of the treaty, the latter claiming that they were, thereby, entitled to repair places previously fortified.⁵ By the end of the truce the one strong point in the city was the Tower of David, 'le donjon de la ville'.⁶

This refortification led to a more thorough dismantling of both tower and castle once the truce had expired. The Moslems were urged to it by the arrival of a fresh crusade under Thibaut of Champagne; after defeating the French at Gaza, their commander, Malik an-Nasir Dawud of Kerak, at once attacked the restored castle in Jerusalem (1239). It fell by assault after twenty-one days; the Tower of David surrendered six days later.⁷ As the French chronicler explains, the garrison were few, poorly provisioned and armed, and so ready to accept a safe-conduct for themselves, their families, and their things, after fighting as well as they could.⁸ In writing afterwards to the Caliph, Dawud pointed out that one of their counts (Arabic *kund*) had been fortifying the castle, had joined it up with the 'Tower of David', and was preparing for siege by setting up timber hoardings and mantlets. To take the castle he used sappers and also artificers who shot their fire against the hoardings. The rest of the defenders took refuge in the Tower

¹ R. Röhricht, *Gesch. des Königreichs Jerusalem* (1100-1291), (Innsbruck, 1898), p. 791.

² Ernoul, *op. cit.*, p. 465.

³ *Ibid.*, p. 468: 'Li Crestien furent bien garni . . . '.

⁴ Continuation of William of Tyre, XXV, 5-6, ed. Migne, coll. 1012-13, or Eracles in *Recueil des hist. des Crois., Occid.*, Vol. II, pp. 384-5: 'et que en ce les avoient mis lor Faquis, ce sont lor prestres', the Arabic *faqih*.

⁵ Authors cited by M. van Berchem, *op. cit.*, p. 137.

⁶ 'Il n'avoit nulle fermeté forz que seulement le donjon de la ville, que l'en apeloit la Tour David', continuation of William of Tyre, Rothelin MS., Chap. XXI, *Recueil des hist. des Crois., Occid.*, Vol. II, p. 529.

⁷ W. B. Stevenson, *The Crusaders in the East* (Cambridge, 1907), p. 317.

⁸ Continuation of William of Tyre, Rothelin MS., Chap. XXI, *op. cit.*, p. 530: 'Li bailliz l'empereour Ferdric avoient malvaissment garni le chastel de genz et de viandes, d'armeurez, et d'anginz et de toutes manierez de choses qui appartiennent au chastel deffendre.'

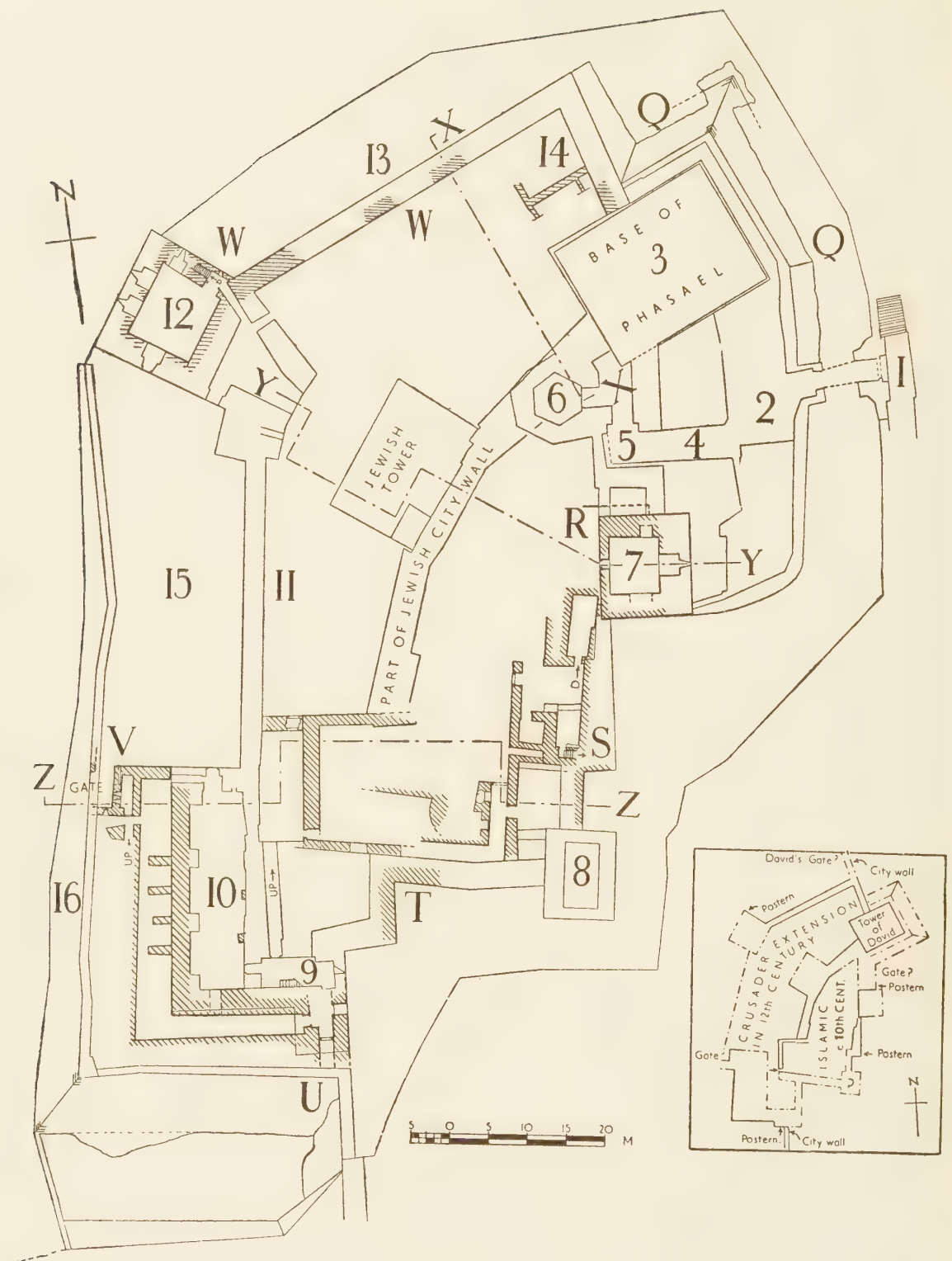


FIG. 25. Plan of the Citadel to show remains of preceding castle, Islamic and Crusader; inset, a restoration of the Crusaders' castle as in the late twelfth century, combining their extension with the previous Islamic castle, c. tenth century.

of David, the lower part of which, of mixed stone and cement, his miners attacked.¹ The French account goes on:

'When the Saracens had the Tower of David and the castle (*la Tor David et la fortresse*), they put miners in at once and presently overturned and brought the tower and castle to earth. The stones were so large that all marvelled at them. It was so well built with lime, cement and sand, the stones welded with lead and hooked with thick bands of iron from one side to another, that only with great trouble and with great force could they throw it down. Thus was overthrown the Tower of David which had lasted ever since it was built until now, both in peace and in war, of pagan and Jew, of Muhammadan Saracens, of Christians and all kind of people.'²

In his letter Dawud explains that he demolished the tower in order to restore the *mihṛāb* of David, but that he still hesitated whether to destroy the castle or keep it for defence. Other authors agree that the tower was his chief object, but mention destruction of both tower and castle.³

The extent of this dismantling can be seen in the walls and towers of the existing castle, for, as in 1219, something was left standing. It is evident that the ancient great tower was not wholly destroyed, for the Herodian base remains complete (pp. 140-2); presumably Dawud took away as much as he regarded as secondary work of the Crusader period, leaving the solid base to carry a simple shrine such as there had been previously (p. 162). But elsewhere the effects of widespread demolition are to be seen; if in imagination the masonry of uniform style which makes up most of the present structure were to be taken away, only the stumps of towers would be left, in some cases with the ragged ends of the curtains attached (as in Pl. XLVIII, 1), the rest having been razed to the level of the courtyard (as in Fig. 21, facing p. 158), or as low as the floor of the ditch. Three of the towers contain Crusader work, viz. the east (7), south-west (9-10), and north-west (12); other remnants of the Crusader castle are shown on plan in Fig. 25, p. 168, at Q-Q, R, S, U, V, W-W (described on pp. 176-87). Although much of this work is typical of the twelfth century, possibly some of it belongs to the rebuilding of 1229-39, e.g. the work in small masonry in the east curtain (at S), but direct evidence for this is lacking. The only well-dated remains of the latter period were in the pilgrims' grave found against the older north-east curtain, as already noted (p. 162).

As relics of the dismantling, whether of 1219 or 1239, two Arabic inscriptions should be noted also. One has long been known, as it is built into the interior of the mosque in the south-west tower (the upper story seen in section, Fig. 21, p. 158); it records the erection of a tower by Al Mu'adhḡham in 610 A.H. (1213-14, while he was provincial governor), and it may have come either from the neighbouring city wall or from the castle itself, apparently from quite a large tower judging from its scale.⁴ Part of a similar

¹ M. van Berchem, *op. cit.*, p. 137, n. 5, quoting and translating Ibn Shaddad's copy of the letter. Ibn Shaddad himself states: 'They had built up a tower and fortified it.' *Ibid.*

² Continuation of William of Tyre, Rothelin MS., *loc. cit.*

³ M. van Berchem, *op. cit.*, pp. 137 ff. Previously Saladin had restored the mosque when he occupied the Tower in 1187, *ibid.*, p. 163, n. 3.

⁴ *Ibid.*, on no. 43, p. 131; although hardly from the Tower of David itself, for, granting that it had been restored as a mosque (pp. 163-4), surely it would have been referred to as such in the inscription. I was mistaken in regarding this as *in situ* in comparing the style of the south-west tower with that of 'Ajlun castle, *QDAP*, Vol. I, p. 28.

inscription, much defaced, Pl. LVIII, 2, has been recovered from the footings of the same tower, at its south-west corner.¹ This includes the name Malik al 'Adil 'Abu Bakr bin 'Ayyub and the date 14 Safar 600, assuming that the century is put last to complete the date, as in almost all inscriptions of the period (. . . *maulana al [sulṭan?] al 'ajall . . . [al] malik al 'Adil 'Abu Bakr [bin] 'Ayyub khallada 'l-lahu mulkahu . . . fi rābi' 'ashara Safari sanati sitti mi'atin wa . . .*). Presumably Saladin's brother and successor, Al 'Adil Saif ad-Din 'Abu Bakr is meant, even though the name is shortened. It cannot be that he is mentioned as father of Al Mu 'adhḍam unless the carver has written 'Abu ungrammatically for the construct form 'Abi. It is within his own reign as supreme Sultan that the probable date in 600 A.H. (1203) falls.² Thus the inscription probably comes from another neighbouring construction demolished in the dismantling of the city wall or the castle, but it adds no more than the other to the history of the site.

(b) *The Citadel under the Mamlukes and Ottoman Turks*

That the Ayyubid ruler Da'ud of Kerak carried out his intended restoration of David's praying-place seems unlikely, as he was soon ejected by Malik as-Salih 'Ayyub, Sultan of Egypt from 1240 and of Damascus from 1245. Visiting Jerusalem in 1247 he himself ordered a survey and restoration of the walls, decreeing that the revenues of the city should be used for the purpose.³ However, the Tower of David was in ruin still when the Dominican missionary Ricold of Montecroix passed by in 1294.⁴ The last Crusader strongholds on the coast had only lately fallen, in 1291, and so long as they held out, the new Mamluke rulers, like the Ayyubid before them, had good reason not to refortify this castle, active as they were in repairing and improving other Crusader castles that fell into their hands.

The rebuilding of the castle took place a few years later under Malik an-Nasir Muhammad, a son of the Mamluke sultan of Egypt, Qalawun, who had planned the final campaign against the Crusaders. The date 710 A.H. was recorded in an inscription of Sultan Malik an-Nasir now lost, which was to be seen over the main entrance (Pl. XLVII, 1: 5 on plan) as recently as 1894.⁵ There is another inscription of his in the mosque in the south-west tower (10), recording its erection in the same year.⁶ The restoration of the castle is ascribed to him by the official Mamluke handbooks of the next century, one of which gives that year.⁷ It would date then from 1310-11 (710 A.H.). Dynastic rivalry gave occasion for the fortification, it may be supposed; ruling from Kerak in Trans-Jordan, Malik an-Nasir may have seen fit to establish a garrison in

¹ It has been removed to the Palestine Archaeological Museum.

² If the date is incomplete, the second Al 'Adil 'Abu Bakr becomes possible, but is improbable as he reigned in name only for a short while, in Egypt 1238-40, Damascus 1238-9.

³ M. van Berchem, *op. cit.*, p. 136, quoting Maqrizi, *Suluk*.

⁴ 'Ibi invenimus turrem David, de maximis et quadratis saxis aedificatam, etiam quod destruentes in destruendo defecerunt et aliquid in memoriam reliquerunt', ed. J. C. M. Laurent, *Peregrinatores medii aevi quatuor* (Leipzig, 1864), p. 108.

⁵ M. van Berchem, *op. cit.*, no. 44, pp. 141 ff.

⁶ *Ibid.*, no. 51, p. 160.

⁷ 'Umari, whose mention of the royal officer Baktamur the Jūkandār supports that date as against Qalqashandi's 716, *ibid.*, p. 142, n. 1. The verb used is *jaddada*, 'restore, renew'. The amir Rukn ad-Dīn Mankūwirish the Jāshangir, who died Sha'ban 717 (Oct. 1317) and is buried in the Mamillah cemetery, was 'Commandant of the Citadel of Jerusalem' (note by the late St. H. Stephan).

Jerusalem, and to secure his position in Palestine, especially after his revolt against the sultan of Egypt, Bibars II.¹ Although the inscription at the main entrance does not describe the extent of his work, the main part of the present Citadel may well be his to judge from its style.

As it stands, the ring-wall of the Citadel is evidently a reconstruction, yet its predominant style is consistent with the work of a single ruler. The towers and curtains, apart from the vestiges of earlier work on which they mostly rest, are of uniform construction throughout (cf. Pls. LIV, LV, LXIV).² By its style it could be either Ayyubid or Mamluke, for in the art of fortification the latter period was the direct continuation of the former. Such features as the internal plan of the towers and the arrangement of their loopholes (Fig. 35, p. 188), the looped arcades of the tower parapets and of the curtains, the loopholes with their lintel carried on corbels like shoulders (Fig. 11, p. 140), or the machicolated brattices of the towers (Pl. LXIV) are modelled on the Ayyubid, no doubt; but they are features that have their parallel in Early Mamluke work also, for instance at Kerak in Trans-Jordan, the large and greatly developed castle which Malik an-Nasir already held and had himself added to.³ Especially significant is the unusual domed vestibule at the main entrance (Fig. 26, p. 174) which is almost a replica of a domed crossing in the vaulted ranges of the western bailey at Kerak castle. At the same time the ring-wall is to a large extent a reconstruction of the Crusader (cf. Fig. 25, p. 168). Only one tower is wholly new, the south-eastern (Fig. 30, p. 179), and only one of the curtains, the western (Pl. LV, 1, at right), which diverges from the probable Crusader line and runs inside it (p. 184). The rest of the ring-wall is a restoration of the Crusader, reaching not less than the former height (p. 186).

The chief change in plan was in the abolition of the ancient city wall, which in the Crusader castle had remained as a cross-wall dividing the inner and upper court from the outer and lower. Now it was either levelled with the upper court, or in the case of the middle tower it was quarried away and the cavity filled up with debris, which included architectural fragments of various periods down to the Crusader as well as early Mamluke potsherds and coins, a filling that could be distinguished clearly from the ancient deposits around the site of the tower (p. 139). In the single courtyard so formed, the upper platform contained by the ancient line was built up with vaulted quarters, some of which utilized Crusader walls as along the east curtain (Pls. LIX, 1 and LXIV, 2), while others were new. From the Ordnance Survey plan of 1865, Pl. LXI, it may be seen how these buildings, whether Mamluke or Turkish, were alined to conform with the buried cross-wall; thus the free-standing arch seen in Pl. LXIV, 2, remains from a long barrel vault, one wall of which rested on the ancient south curtain, cf. Pl. LV, 1. But with the addition of parallel buildings in front of the ancient line, the difference in levels merged into a gentle slope downwards to north and west (Fig. 15, facing p. 148).

From the middle of the fourteenth century, as western pilgrims begin to reach the city

¹ As suggested by M. van Berchem, *ibid.*, pp. 145-6.

² Except perhaps the north-east tower vault (see below, p. 175). Cf. M. van Berchem, *ibid.*, pp. 163-4.

³ M. van Berchem. *op. cit.*, p. 139, rightly draws a comparison with such Ayyubid castles as 'Ajlun, Damascus, Bostra, but as apt a comparison may be drawn with the additions to the town wall and castle of Kerak made by Baibars and Qalawun.

again, their accounts mention the good order in which they found the restored castle.¹ In the first accurate panorama of the city, illustrating the travels of the German ecclesiastic Breitenbach in 1483, the eastern towers appear in their present state, with their brattices and crenellations.² Closely contemporary with this is the account given by the Dominican friar Felix Fabri of Ulm, which is of particular interest for what he has to say of the entrance; the castellan's son invited him to go in:

'So we followed the young man and crossed the bridge over the ditch, and near the gate there is a bridge which can be drawn up and let down on chains. He led us in through two iron gates into the courtyard of the castle . . . and up to the top of the walls and towers, and to all the chambers round about, and we wondered at the thickness of the walls, and the number of towers around the ring-wall. For it is built after the fashion of the strong castles of Germany with walls, battlements and many loop-holes for machines (*cum muris, moenitis et foraminibus multis machinarum*) . . . and around about it had deep ditches which, because they are not kept clean, are filling up, and the castellan has now planted a kitchen garden therein on the eastern side . . . yet there is no place so strong and so well fortified as this castle in all Jerusalem.'³

By the authors of the contemporary Mamluke handbooks it is rated less highly, as it was falling into neglect.⁴

It was repaired and improved after the Ottoman conquest (1517), under the second Ottoman ruler of Jerusalem, Sultan Sulaiman the Magnificent, whose inscriptions prove that he completed his work here before he undertook his extensive reconstruction of the city wall.⁵ First came the outer gateway, Pl. LX, 1; 1 on plan, Fig. 35, p. 188, which an inscription in Arabic dates 938 A.H. (1531-2), poetically styling him 'the second Solomon'.⁶ The stone bridge, 4, which connects the barbican, 2, with the main entrance, 5, is his, since either side bears a cartouche containing his Arabic titles; hence the intervening barbican is as old or older. Last came the western terrace or battery, 15, which the inscription calls 'bailey' (*rabad*), and probably its ditches also; this outwork from the peculiar wording of his titles should be dated between 940 and 945 (c. 1538).⁷ Meanwhile the battlements had been repaired.⁸ By 1537 a Jewish traveller writes that 'the Tower of David has been restored, with the construction of new and very fine buildings', adding that it was the intention, not only to repair, but also to add the works required by progress in war.⁹ In the mosque at the south-west tower, 10, the Sultan dedicated

¹ Ludolf von Suchem and *Guide-book to Palestine* (c. 1350); John Poloner's 'Description of the Holy Land' (c. 1421), in *PPTS*, Vols. XII, p. 102, VI, pp. 23, 1-2 respectively.

² Reproduced in *ZDPV*, Vol. XXIV, Pl. 2; also in H. W. Davies, *Bernhard von Breydenbach*, London, 1911, Pl. 25.

³ After the translation by Aubrey Stewart, *PPTS*, Vol. IX, p. 211, cf. Vol. VIII, p. 324; Latin text quoted by M. van Berchem, *op. cit.*, p. 154, n. 3. By contrast the city wall was then in poor condition.

⁴ Qalqashandi, *Subḥ al 'Ashā*, Vol. IV (Cairo, 1914), p. 101: 'owing to its condition and defects it is of no use or strength for defence'. M. van Berchem, *op. cit.*, p. 154, quotes parallel texts and also the statement of the Jerusalem chronicler, Mujir ad-Din, that it had been falling into ruin since 877 (1472-3).

⁵ For his inscriptions on the city wall and its gates, see *ibid.*, pp. 431-49. They range from 945 to 947 (1537-41). Another, dated 945, was found during repairs in 1946 on the fourth tower to north of Jaffa Gate: 'amara bi 'inshā'i hadh(a) 's-suri 'l-mubarakī maulana 's-sultānu Sulaiman bin Salim Khan khallada 'l-lahu mulkahu fi sanati 945.

⁶ *Ibid.*, no. 45, p. 146.

⁷ *Ibid.*, no. 48, p. 150. It has been removed to the Palestine Archaeological Museum from its position in the revetment wall near the north-west tower.

⁸ Mujir ad-Din notes that they were down in 1532, see *ibid.*, p. 155.

⁹ *Ibid.*

a carved stone pulpit (*minbar*) bearing his inscription.¹ Apart from such minor additions as the minaret of 1655, the Citadel has taken on its modern form.²

(c) *The Citadel as existing* (Plan in Fig. 35 facing p. 188)

As the Turks left it, the Citadel was still surrounded by its ditch on all sides except at the north-west, where it was interrupted by the roadway made between that tower and the Jaffa Gate (*Bāb al Khalil*) in 1898 (at 19 on plan, Fig. 35).³ Until then it had been connected with the circuit of the city wall there, as it still is at the south. It was entered only from the town side.

Outer gateway (1 on plan; Pl. LX, 1)

Erected in 1531–2 under Sulaiman the Magnificent (p. 172), it is a simple gateway with twin doors, which were formerly covered from the chamber over, through vertical slots and small loopholes. Formerly it was connected with the barbican, 2, only by drawbridge, the slots of which are visible in both scarp and counterscarp walls of the main ditch. Whether this would have been the position of the drawbridge noted c. 1483 (p. 172) is not clear; the text rather implies that it was then nearer the main entrance, perhaps within the present barbican.

Barbican (2 on plan; Pl. XLVII, 1)

Extending south from the base of the north-east tower, 3, level with the main entrance, 5, it is separated from the main ring-wall at 5 and 7 by an arm of the ditch, but its parapet is continuous from the corner of the east tower, 7, to the parapet of the sentry-walk which crowns the glacis in front of tower 3; its parapet is crenellated throughout and on either side of the drawbridge it is looped for musketry. It is a solid work revetted in rough rubble, which contrasts with the ashlar of the upper part of the glacis in front of tower 3. Evidently it is secondary to the glacis, since this once returned along the south side of tower 3, some of the pyramidal stones of the south-east angle having been built at random into the barbican wall where that angle would have been (Pl. LX, 3).⁴

From the south half of the terrace, which the Turks used as an open-air mosque (Fig. 15 after p. 148), stairs go down to a small gateway leading out to the ditch; while from the north half the main entrance, 5, is approached by 4, a stone bridge of two pointed arches, which was erected under Sulaiman the Magnificent (p. 172); it perhaps covers the rests of a former wooden bridge, but no lifting-slots are visible in the face of the wall beside or above the entrance, externally of rusticated masonry uniform with the rest of the wall.

¹ *Ibid.*, no. 52, p. 164. The restoration of 1908–9 recorded in a Turkish inscription over the entrance would account for the painting of the stonework.

² For the Turkish additions or repairs, see *ibid.*, pp. 149, 156–9, 165 on inscriptions nos. 46, 49, 50, 53. The first accurate plan was made by Lts. Aldrich and Symonds, R.E., in 1841, under the orders of Lt.-Col. Alderson, C.R.E. in Syria after the occupation by British and allied forces in support of the Ottoman government against Ibrahim Pasha of Egypt; it was published as a detail on their city plan included in Williams, *The Holy City*, 2nd ed., (London, 1849).

³ The western ditch was finally filled in in 1927, see *QDAP*, Vol. V, Pl. LXVIII, 1, cf. Pl. LXXI.

⁴ See also *PEQ*, 1940, Pl. V, Fig. 2.

Main entrance (5 on plan; plan and sections, Fig. 26; Pl. XLVII, 1 and LX, 2)

Set between the two salient towers 3 and 7, it is a bent entrance of the usual oriental form having a double turn, Fig. 26. It bore the inscription of Malik an-Nasir Muhammad, dated 1310-11, in the recess above the lower arch of the first archway (p. 170).¹ This open archway was defended by an overhead machicolation concealed between the two arches, five sets of corbels dividing it into six slots, now covered over; and at ground level by two loops, one facing, the other on the flank, the latter covering the first doorway on the right. One loop has been enlarged for fire-arms, like many others in the building. There are no defensive slots in the cut-stone vault covering this bay, even in front of the doorway (Pl. LX, 2). But the doorway itself was protected by a portcullis, the chases for which run up either wall and join in an overhead slot, now blocked towards the roof, in the repair of which the lifting arrangements have disappeared also, along with a stone sentry-box which was still there about 1919 (Pl. XLVII, 1). At the foot of the chases the stone rests for the portcullis remain, somewhat lower than the modern bench against the west wall. Both leaves of the door remain standing in their sockets, their decayed timbers bound together by overlapping strips of iron plating, much pitted by musket balls. Thence a continuous barrel-vault opens to the right into two raised recesses, the loops of which have corbelled heads, and to the left into the second doorway; here the door sockets exist in the wall recesses though the doors have gone. This doorway opens into the hexagonal chamber, the dome and lantern of which recall another such crossing at Kerak (p. 171); doorways without doors open in the alternate sides, on the left into the courtyard and on the right into the modern balcony carrying stairs leading up to the roof which previously stood on the bank in front of the ancient wall beneath

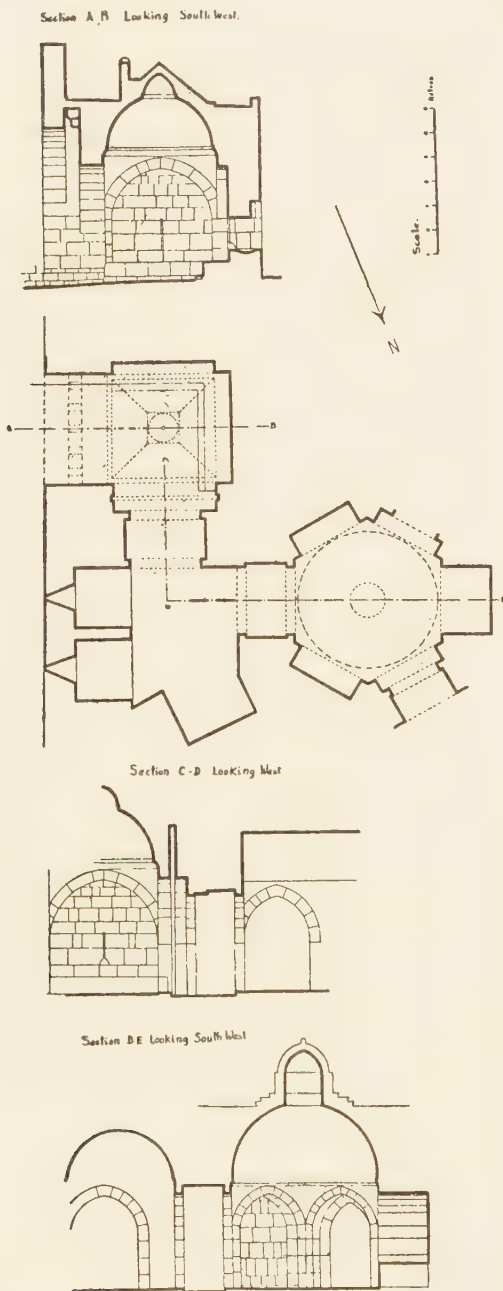


FIG. 26. Main Entrance.

(Pl. XLIX, 1). This porch or audience chamber, 6, and the entrance, 5, are of one build consistent with the inscription of 1310-11 above the first archway. Hence the portcullis is remarkable as a rare Saracenic example of a device frequently employed in the

¹ For detail of archway and panel see H. Kendall, *Jerusalem, The City Plan* (London, 1948), photo. no. 156.

Crusader castles;¹ another, lately renewed, existed in the gateway on to the west terrace, beside tower 12, but this appears to have been of later insertion (p. 184).

From the roof over the entrance, which has an outer parapet only, the upper stories of the flanking towers 3 and 7 are reached (Pl. XLVII, 1).

North-east tower (3 on plan; section, Fig. 27; elevation, Fig. 11, facing p. 140; Pls. XLVII, 1 and LXIV, 1)

It consists of a single story on the solid ancient base, Fig. 27. Internally it would be of cruciform plan but for the cistern occupying the west arm; on the other three sides open barrel vaults carry the central groined vault, the octagonal light of which looks like an insertion. In plan and structure this interior is like an undated tower in the east town wall at Kerak, as well as two which Al 'Adil added to the ring-wall of the Citadel of Cairo early in the thirteenth century;² but, more significantly perhaps, it also resembles

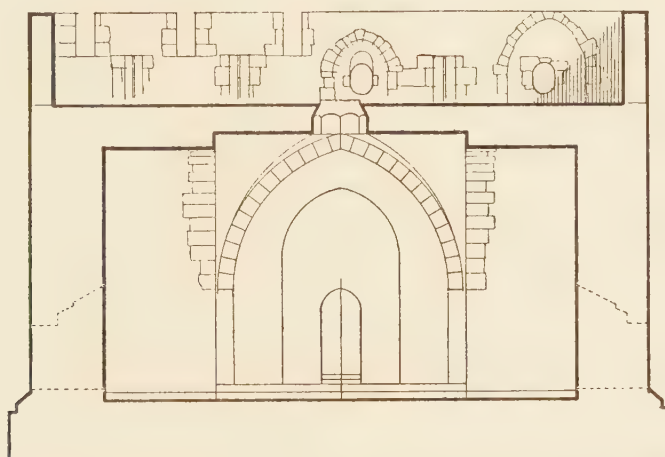


FIG. 27. North-east Tower: main vault, section looking north-east

a typical Ayyubid *madrasah*, a form appropriate for the restored praying-place (*mihirāb*) of David which would have been here (pp. 162, 169-70). But it was looped for defence; some of the loops have been enlarged but their heads remain intact; those in the deep recesses to the north and south have a tapering vault which ends in a smaller arched recess, a reduced copy of the larger but backed by a straight lintel, a design not seen over the other loopholes of this plan elsewhere in the Citadel. Those in the three corner chambers have plain tapering arches. From the fourth corner stairs ascend to the roof, which has a simple parapet on the three outer sides, with some enlarged ports for guns. Corbels remain to show the position of two small brattices, one at the front, the other over the entrance at the back.

¹ As at 'Atlit, *QDAP*, Vol. I, p. 122; Vol. III, pp. 155-7.

² The 'Hospital' tower and Burj Kerkyalan, K. A. C. Cresswell, 'Archaeological Researches at the Citadel at Cairo', Figs. 2 and 9, in *Bulletin de l'Institut français d'archéologie orientale au Caire*, Vol. XXIII (1924). Other examples of the period exist at Ba'albek, as Mr. D. J. C. King has kindly pointed out to me.

Former postern (at R on plan, Fig. 25, p. 168)

To return to the hexagonal chamber, 6. From its south door a walk led along the east curtain at the same level to the ground floor of the east tower, 7. This would have passed across the entrance to a former passage, 3 m. below, which slopes down beside the tower base to a blocked postern doorway over 2 m. lower (for this level, see section in Fig. 15, facing p. 148). Of the doorway only the lintel is visible, formed of two ancient columns laid side by side, and inwards of these the segmental arch under which the door swung, and from which the half-vault of the passage slopes upwards; all this is of small rubble along with the north wall of the passage. The other wall is the north side of the tower base, which on this and the adjacent west side is built of large roughly trimmed blocks, in courses 60 cm. high, the remains of which rise above the present walk at the two western corners of the tower, Pl. LXIV, 2. Both the tower base and postern survive from the previous castle, and may be Islamic or Crusader; the postern may have been blocked by the Crusaders when they came to construct another to the south of the tower (at *S*, see below).

East tower (7 on plan; section and plans of stories, Fig. 28; Pl. LXIV)

The ground floor (*A*) is entered from the courtyard level, the upper stories (*B*, *C*, *D*) are accessible only from the roof of the main entrance (p. 174).

As may be seen from the section (Fig. 28),¹ the ground-floor vault is of varying build. The lowest and oldest work is in rough rubble, faced but loosely jointed and laid in ashy lime mortar; this runs along the north side and returns a short way at either corner. Surmounting it at the springing of the vault on that side, there are six courses of small ashlar, dressed smooth with a fine comb-pick and closely jointed; and this superior work includes the opening to a passage leading north, which is now blocked just beyond the springing of an intersection in its rather flat vault. It resembles the small masonry at the foot of the east curtain farther south (at *S*, see below), and may represent the Crusader reconstruction of the early thirteenth century (p. 167).

The rest of the vault, including a blocked loophole recess in the middle of the south side, is evidently of the subsequent Mamluke reconstruction, like the upper stories, built of large squared blocks laid in ashy lime mortar with wide joints, but utilizing some Crusader stones distinguished by their neat diagonal dressing. Yet the rough rubble of the original build survives externally up to the second story at the south-west angle (Pl. LXIV, 1) and on the south side its junction with the rusticated facing of the present build can be traced outwards and downwards to its foot, so indicating its state at the time of the Mamluke restoration.

In the stories then erected (Fig. 28, *B*, *C*, *D*) it resembles three of the other towers. At roof level (*C*, *D*), around the three outer sides it has a double parapet, that is, the parapet-walk over an arcade of loops as in the curtains but with brattices as well at the lower level (*C*). Like the other towers, too, it was built open on the fourth or inner side, for the existing wall here (level with *C*) is clearly additional from the edge of the roof upwards.

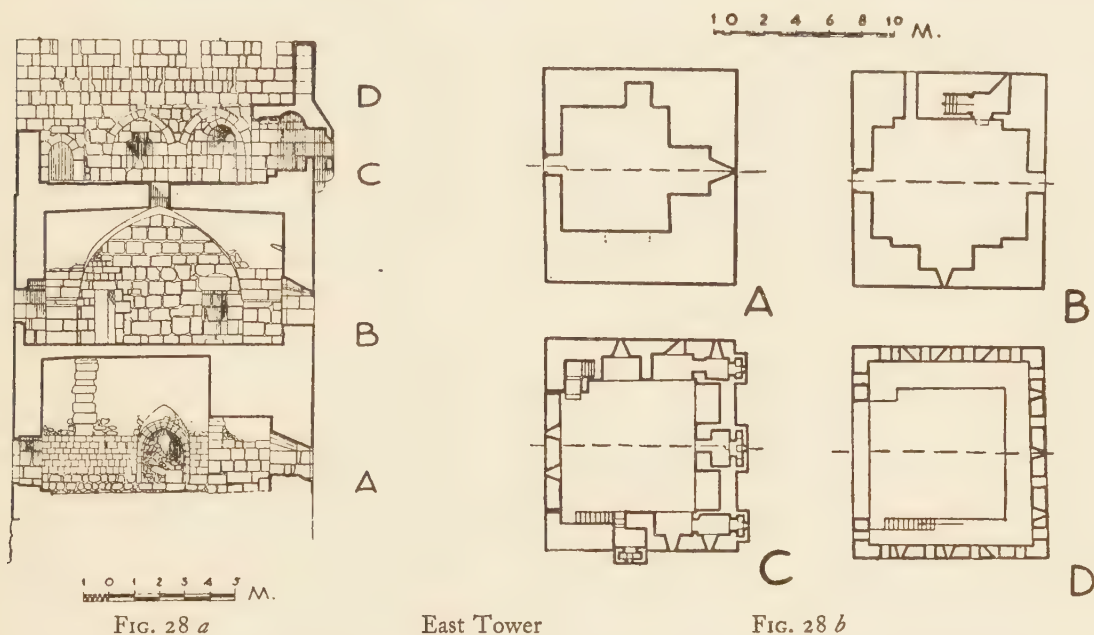
¹ This and the following Figs. 30, 31, 33, and 34 are from measured drawings kindly contributed by Mr. J. C. B. Richmond.

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East curtain (between towers 7 and 8 on plan; section in Fig. 21, facing p. 158; Pl. LXIV, 2)

Above the courtyard level it is typical of the Mamluke reconstruction with its arcade of loops and parapet-walk over the arcade; and the lower loops are as typical, three having the corbelled head, the fourth, facing south, a tapering vault (cf. Fig. the east tower, 28 *a*, C), all in the same careful masonry of comb-picked finish. But both inside and outside it rests on older work.

On the inside for its whole length it rests on smaller masonry forming the east wall common to the range of vaults which it formerly abutted (Pl. LXIV, 2 shows their



springing). Their original floors lie 80 cm. or more below the present courtyard; the original sills and jamb-stones are *in situ* in the western doorways (Pl. LIX, 1), and to judge from their size and diagonally combed finish they are of the twelfth century. In the south room, moreover, against the original north and west walls there are mangers *in situ* (Pl. LIX, 3), very like those which the Crusaders, always careful of their horses, provided at another of their castles.¹ Again, the elbow of the wall is built against a broken staircase, part of a former postern that has the appearance of Crusader work (see below).

On the outside, nothing of the original work is apparent in the face extending from the east tower, 7, to the re-entrant; it is wholly faced with boss-and-margin stones, new and old, like the rest of the Mamluke facing. A sounding made at its junction with the older portion of the tower showed no indication of a junction in advance of the present line. At the south, on the other hand, the older line was no less advanced because the

¹ At 'Atlit in the stables in the suburb, *QDAP*, Vol. V, pp. 3 ff.

present facing surmounts older work in the re-entrant; built of small uniform ashlar, this extends from just inside the outer angle almost as far as tower 8 and stands up to the courtyard level (Fig. 21). It is to be connected with the head of a broken staircase of similar work on which the inner angle rests on the inside (see below).

From the foundations upwards this older stonework in the re-entrant is unusually small for external facing, especially Crusader work.¹ At the foot of the glacis, however, there was brown- and yellow-glazed pottery compatible with a twelfth- or thirteenth-century dating. Conceivably, then, it should be ascribed not to the principal Crusader construction in the twelfth century but to the restoration early in the thirteenth, like the similar masonry of intermediate phase inside the east tower at ground-floor level (p. 176). This inner line, covered as it probably was by the still-existing ancient city wall, would have been the most likely section for the rebuilding which prompted Da'ud of Kerak to attack and demolish what remained of the Crusader castle in 1239 (p. 167).

Crusader postern (at S on plan, Fig. 25, p. 168; sections in Fig. 29; Pl. LXIV, 2)

With the older work in the re-entrant should probably be connected the broken staircase on which the inner elbow of the curtain is superimposed. Their relative height may

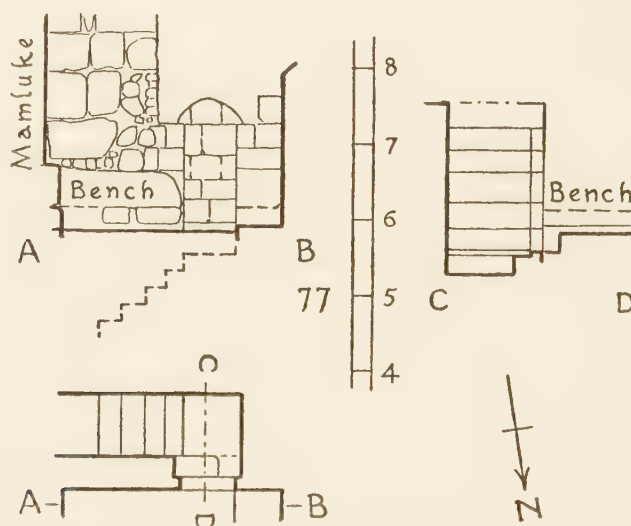


FIG. 29. Stairs of Crusader postern in East Curtain (at S on plan)

be seen by comparing Fig. 21 (facing p. 158) with Fig. 29, in the sections taken through neighbouring rooms with corresponding floor levels, original and secondary, the latter contemporary with the present build of the curtain. The staircase entered the northern room at the original level, corresponding to the original sills in the western doorways of these rooms. The wall arch on one side of the landing belongs to a small intersecting vault, which has gone, together with that of the staircase. Lower down, the broken staircase ends against the masonry of the present build, but if continued to the outward elbow of the curtain, it would have emerged not far above the floor of the ditch.

¹ Although the facing of the thirteenth-century walls of Caesarea is just as small.

It would have resembled the postern in the east side of the north-west tower (p. 184). Like the re-entrant, it must date from the Crusader period, and probably from its later phase.

South-east tower (8 on plan; section, Fig. 30; Pl. LXIV)

Unlike the other towers, this appears to be Mamluke work throughout. As it is a corner tower its double parapet (Fig. 30) runs along all four sides, yet it stops at the curtains to leave a gap towards the courtyard (Pl. LXIV, 2). Both the outer sides are without brattices (Pl. LXIV, 1). The only access to this upper story is from the adjacent parapet-walks, but there were formerly stairs from the courtyard to the eastern of these across the vaulted range (above *S*, Fig. 25; Pl. LXIV, 2).

Whether it replaces an earlier tower seems doubtful, for the once vaulted room from which it is entered previously extended farther south, it appears; beneath the present floor-level from which it is entered there are remains of mangers along both the north and west walls (Pl. LIX, 3); but while that at the north continues beneath the first course of the present curtain, the other has been cut away at the south-west, together with the west wall, to make room for the south curtain.

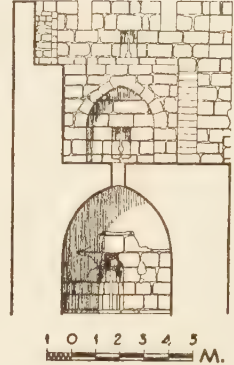


Fig. 30. S.E. Tower

South curtain (from tower 8 to next angle; *T* on plan, Fig. 25, p. 168; Pl. LV, 1)

From the courtyard side this is evidently of one build with the east curtain and intervening tower. The only variation is in the loop-heads, which introduce a trefoil instead of the usual tapering vault, each lobe being elaborately tapered in cut-stone to a flat lintel. But from the outside there is a difference between the two arms of the slight angle occurring between the middle two loops; at the east the wall is of Mamluke work from the bottom upwards, but towards the re-entrant at the west it is superimposed on large and rough rubble masonry. This returns at the re-entrant (Pl. LX, 4), where it rests on well-jointed masonry of medium size, mostly of boss-and-margin stones. The latter is like the stonework of the round tower and adjacent wall found just inside the south curtain, some metres higher (marked 'Islamic' on Fig. 23, facing p. 162), and may possibly relate to the same edifice of the beginning of the Islamic period (p. 160). The subsequent rubble work, which looks like foundations, may nevertheless have been free-standing, for it is hardly rougher than the older parts of the east tower (Pl. LXIV, 1) or of the north-west front, parts of the later Islamic castle which the Crusaders took over or added to. Presumably it was here (at *T*) that the inner courtyard joined the ancient city wall, the older part of the curtain having been built to conform with the axis of the south ancient tower, as shown in broken line on plan, Fig. 35, p. 188; cf. Fig. 2, p. 123. Equally large and rough rubble work forms the foundation of this end of the curtain on the inside, and it continues west and returns south to contain a large cistern occupying the offset of the present tower (north of 9). It is likely that the north wall of this cistern utilized the south side of the ancient tower, either in its early or late form (see Pl. LV, 3, showing the two styles as seen at the west). The upper, neatly drafted masonry which

follows the west and north sides of that tower, on a slightly divergent alinement, stands only to the courtyard-level; and to judge from abutting Crusader work (Fig. 21), and from the doorway at the west, which had a segmental arch in front, it may be twelfth-century or earlier work which went out of use at the Mamluke reconstruction.

South and south-west towers (9 and 10 on plan; section and plans of stories, Fig. 21, facing p. 158, and in Fig. 31; Pls. LV, 1, LX, 4, and LXIV, 1)

These towers may be regarded as a single large work since they are interconnected at the basement-level (*A*) and at the roof-level (*C*); yet the south-west tower was intended to culminate in a vaulted hall, to judge from the lofty window opening at the west which has vault impostes inside it,¹ and when complete this would have been as separate as the story below, which contains the mosque. Completed it would have stood as high as the double parapet of the south tower. Its incomplete state is explained by the marked outward lean in the west wall (from *B* upwards), and indeed it seems likely that neither of the upper vaults was intended originally, but that the outer walls at first stood no higher than the range of loops at the first floor, surmounted perhaps by a parapet at the level of the setback (Fig. 21). For one of the southern loop recesses is partly blocked by the east wall of the first-floor vault and another, still visible from the outside, is wholly blocked by the prayer niche (*mihṛāb*); further, the western responds of this vault are simply applied to the west wall, not bonded with it. However, the addition of this vault may have been but an intermediate stage in a single build, the construction and detail of which is consistent with the date of the inscription of Malik an-Nasir Muhammad recording the installation of the mosque in 1310–11.² High up on the east wall of the south tower an inscription panel was provided, but it is blank (Pl. LX, 4).

The basements (*A*) were reached from the courtyard by the passage beside the south-west tower, down a ramp which started level with the former doorway on the west of the south ancient tower, over 2 m. below the present level. The only door leading outwards was at the north, towards the west terrace; the blocked doorway at the south seen in the section belongs to a previous plan, like the three doorways from what is now the basement of the projecting south tower (see Fig. 32, p. 183). In this tower (9) the second and main floor was once reached from below by a stair neatly carried on successive arches against two adjacent walls; a step was cut in the back of each voussoir, meeting the next at the middle of the upper and lower tread, as is shown by two voussoirs of the second arch still preserved *in situ* in the masonry of the pier which supports the minaret, the insertion of which (in 1655) would account for the demolition of the rest. It was replaced by a man-hole needing a ladder, such as gave access to the basement (Fig. 32). The second floor is accessible from the courtyard also, through a rather small doorway. The main floor of the south-west tower (*B*), with the mosque, is entered only from the courtyard (Fig. 31). Its mezzanine fighting-gallery (*M* in section) can be reached only by ladder through a man-hole in the vault at one end. The corresponding terrace at the

¹ See *QDAP*, Vol. V, Pl. LXVIII, 1.

² Not necessarily of another period or ruler, as M. van Berchem argued in pointing out the secondary character of the mosque vault, *op. cit.*, pp. 161–2.

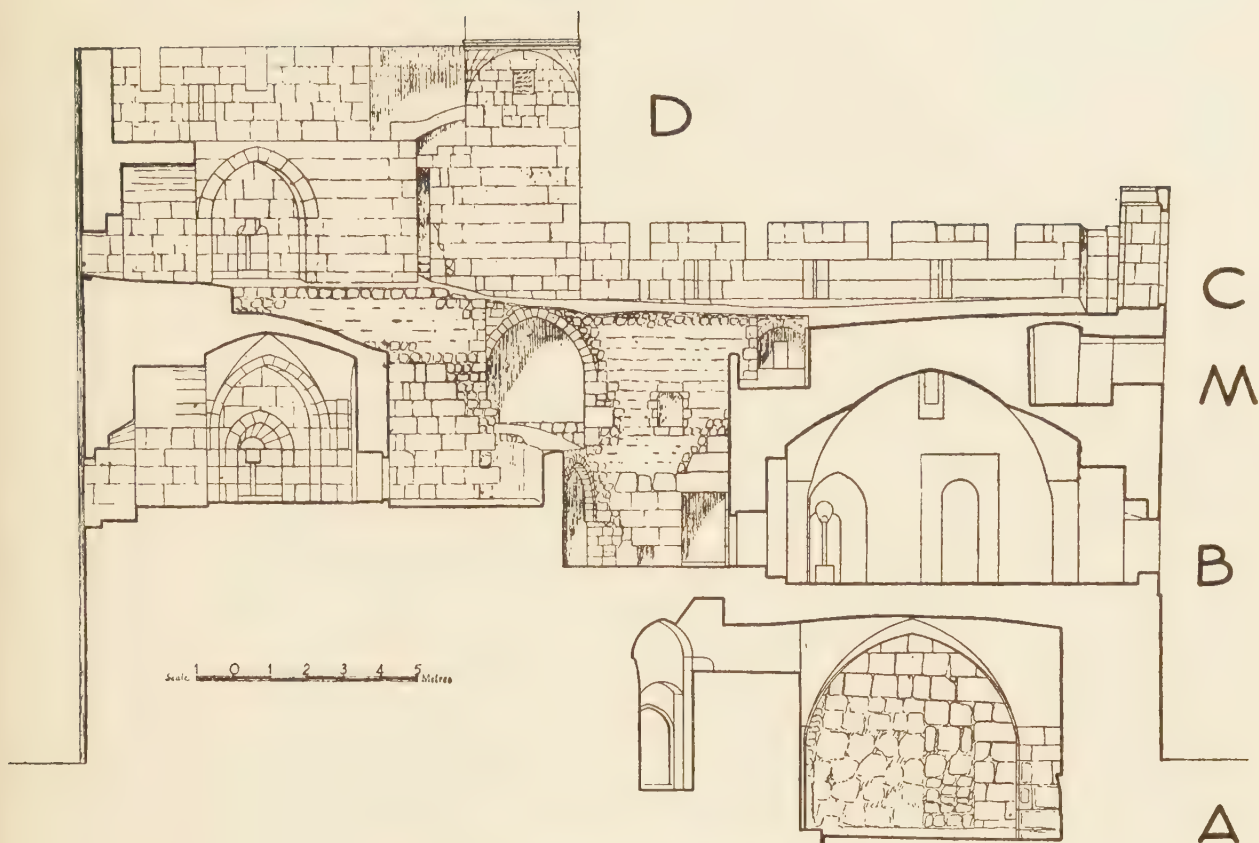


FIG. 31 *a*. South and South-west Towers, looking south

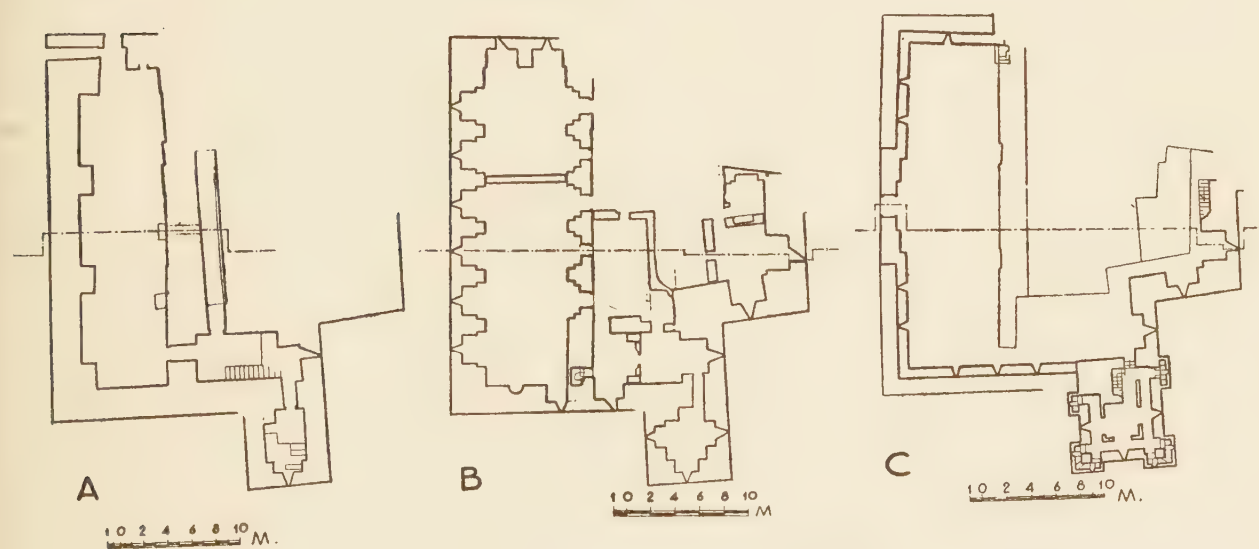


FIG. 31 *b*. South and South-west Towers

other side, the roof and the parapets of the south tower, being open towards the courtyard, are approached from the parapet walk of the adjacent curtains, to which stairs ascend from the courtyard at the junction of the south-west tower with the west curtain, starting beside the north door.

Crusader south-west tower, south postern, and west gateway (at *U-V* on plan, Fig. 25, p. 168; sections and plans in Fig. 21, facing p. 158, Figs. 31 and 32; Pl. LIX, 2).

That the Crusader castle ended here in a single work somewhat larger than the combined towers (9, 10) is clear from the remains of twelfth-century work in their basements or outside them to the south and west. It was built upon the bank of ancient deposits in front of the ancient city wall (pp. 149, 158), towards the brow of the slope, which the present glacis here encases and the south ditch intersects.¹ Curving in conformity with the ancient line north by east, this bank would have offered the natural line for a curtain linking the south-western work direct with the north-west tower (12) and the curtain beyond, which are also of Crusader origin. Whether ditches then bordered the south and west sides is doubtful; it seems unlikely because of the gateways which opened on either front of the south-western work (at *U* and *V*).

The southern limit of this work is given by the salient part of the south tower (9), the south front of which is built over a half-ruined postern doorway (at *U*), which was set alongside the connecting curtain of the city wall, now much reduced (see Fig. 32). With the Mamluke work goes the higher outer arch and the overhead slot it conceals (Fig. 31, plan at *A*); the blocked lower arch is older, part of a basement which was wider than at present; not only do the earlier courses at the foot of the south front project westwards, but inside there are doorways opening both east and west (the eastern is hidden behind a later glacis rising from the ditch (Pl. LX, 4)). The western doorway leads into a barrel-vaulted undercroft built of small rubble, now standing for a few metres only. Westward of that its ruined outer wall can be traced to its junction with the outer wall of the undercroft which has been excavated alongside the south-west tower (Pl. LIX, 2). The corner has been heavily blocked to carry the foundations of the tower corner, actually preserving the springing of the vault of the undercroft at its inner corner.² Along the inner wall of the west undercroft, the remaining vault-springing actually carries the foundations of the west wall of the tower (Pl. LIX, 2). The vault was half basement and was used as stables, the stone mangers of which were found against the inner wall between the screen walls towards the corner. Their troughs were partitioned, unlike those in the east range of the courtyard (Pl. LIX, 3) but like others of known Crusader origin.³ These stables could have been reached from the outside through the postern and the south undercroft. No doorway to the interior opened from the western, but possibly the southern communicated through the blocked doorway at that end of the tower basement (Fig. 31, section at *A*). That this basement replaces a Crusader vault of almost the same span is clear from the typical wall responds which survive in both

¹ See *QDAP*, Vol. V, Pls. LXVIII, LXXI; note counter-scarp wall revetting cutting in bank at right.

² Embedded in this blocking was the fragmentary Arabic inscription noted on p. 170.

³ At 'Atlit, *ibid.*, V, Pl. XX, 2.

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walls, as in Pl. LIX. 4 (at the east; cf. Fig. 21, section and plan at *A*; those at the west are flush with the wall).

But the chief use of the undercroft passage was to serve the defences covering the former west gateway (at *V*). From the long room at the north end of the west range, which

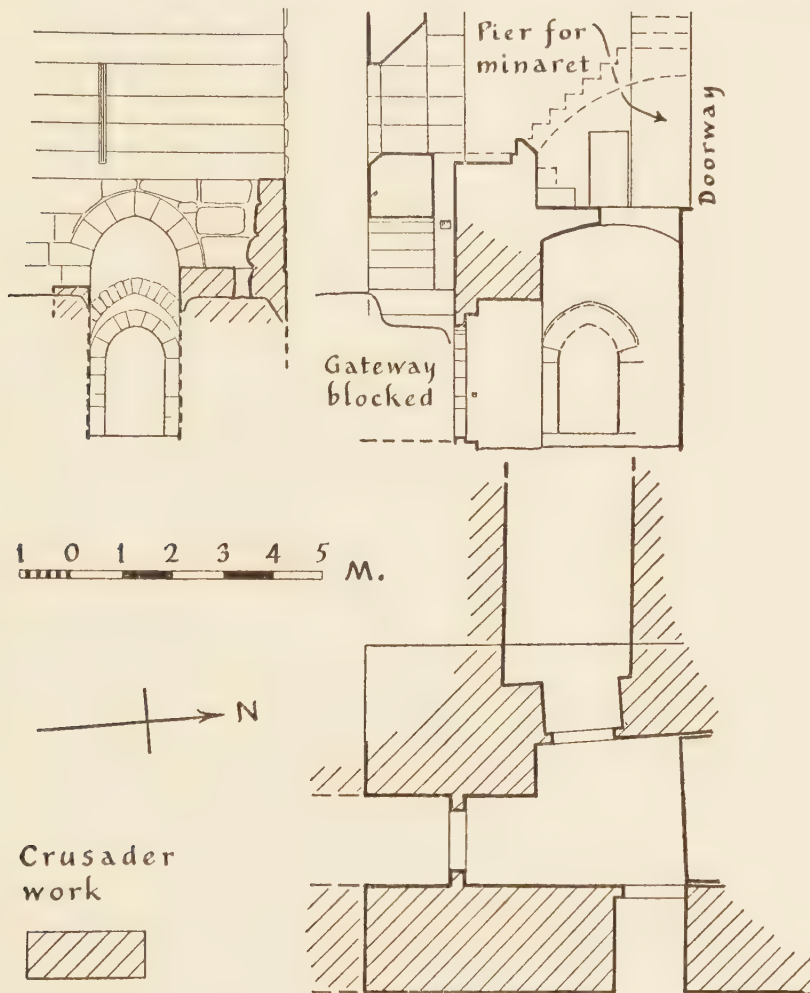


FIG. 32. Crusader postern in South Tower (at *U* on plan)

must have been the guard-room,¹ a door leads into narrow passages running west and north, both with loopholes; there were traces of two close together facing west as well as another facing north (see plan, Fig. 25, p. 168). From the south passage a short ramp led up to the terrace outside the undercroft (Pl. LIX, 2), probably to a sentry walk behind a parapet like the present, for the undercrofts were too much buried to have loopholes. Within the angle contained by the other two passages or fighting galleries lay the gateway; the angle was not fully excavated because of the condition of the existing parapet, but its walls go down at least 3 m. below the loops. Low down, a

¹ The glazed bowl in Pl. LXII, 6-7, was found here, at secondary level.

corresponding wall runs parallel with the east wall at a distance of just over 2 m., and so placed that it may belong to the opposite angle of a passage turning from west to north. Both arms would have been covered by the fighting galleries above. Conceivably, then, there was a gateway facing west, entered some way down the slope behind the glacis of to-day, whence a deep passage climbed upwards, turned northwards against the former outwork, and then bent east a little to follow a former curtain wall to the south-east corner of the north-west tower (12), to enter the courtyard there by the existing gateway, assuming that this has been built up in part from a lower level.

West curtain (11 on plan; Pl. LV, 1) with gateway from terrace (15 on plan; section of gateway, Fig. 33)

Wholly Mamluke work, as clearance of the foundations on the courtyard side proved, it has loops like those in the upper arcade of the north-west curtain (section in Fig. 11, facing p. 140). It is of one build with the turret at the north end. But the gateway between this and the north-west tower (12) looks like an insertion, its gate-house (Fig. 33) an annexe to the tower. Its portcullis is clearly contemporary, since its chases stop above the road-level. Yet it may well be as late as the reign of Sulaiman the Magnificent, under whom the western terrace or battery (15) was created (c. 1538, p. 172). An earlier entrance has to be postulated here, however, in view of the Crusader west gateway (at *V*); it may be about a metre below, to correspond with the ground floor of the tower which is of Crusader origin (cf. Fig. 34, section at *A*, south wall), but we did not test this point.

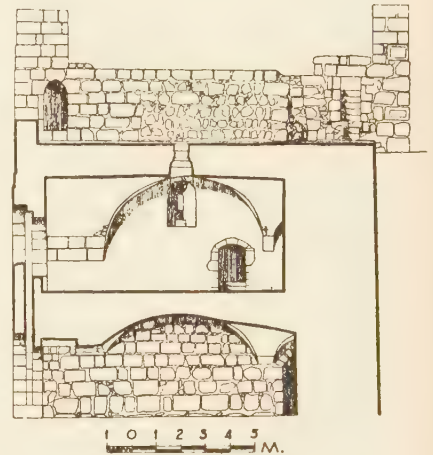


FIG. 33. Gateway from West Terrace

North-west tower (12 on plan, Fig. 25, p. 168; sections and plans of stories, Fig. 34)

Both floors are entered from the gate-house, the ground floor (*A*) direct by a small doorway at the north end of the common wall (Fig. 33); the first floor (*B*) either by a staircase in the wide east wall of the gate-house up to the first floor or by a door to this floor from the arcade walk of the west curtain. The doorway to the ground floor (*A*) opens into a passage in the side wall of the tower; after a few steps down there is a landing with a circular trap and an enlarged entrance to the tower (see section, Fig. 34); thence the staircase goes down to a postern close to the north corner and near the rock floor of the ditch. The outer doorway on the west side towards the terrace (15) is recent, an enlarged loophole. To the roof and parapets there is access by a staircase in the east wall of the gate-house, parallel with the lower, and from the parapet walk of the west curtain by the stairs at its south end. Both lead on to the gate-house roof, which leads direct to the brattice passage (*C*), entered at the south only, or by a few steps to the parapet (*D*), this being open at the back (as seen in Fig. 33).

While both vaults are Mamluke in their detail, they are imposed on earlier work, like those of the east tower (p. 176). The north-east wall embodies a portion of heavy rubble

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work which rises against the adjacent curtain almost to the parapet level; its ragged end can be traced downwards almost to the north corner, covering most of the basement in-

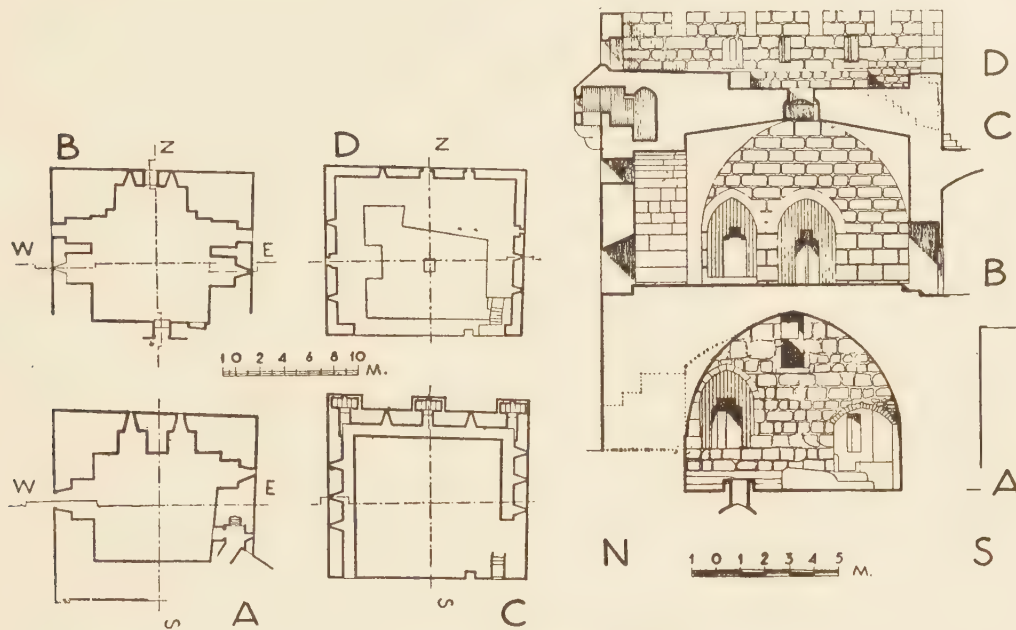


FIG. 34 a. North-west Tower

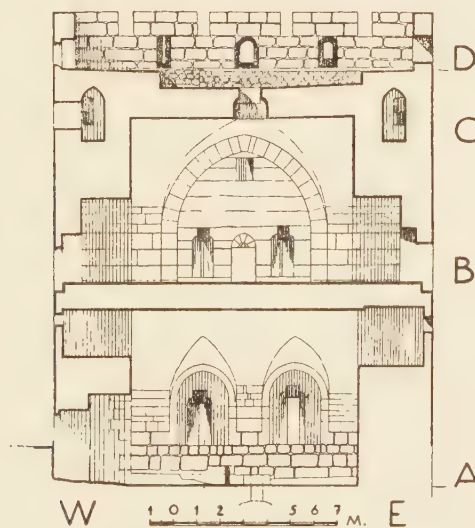


FIG. 34 b. North-west Tower looking north-west

cluding the stairs to the postern in the ditch. On the other three sides the basement wall is buried out of sight. Yet there is no doubt that internally it is wholly pre-Mamluke since it is wholly occupied by a large cistern, cross-vaulted in four bays, on the west wall of which the cross is embossed on the original plastering (Pl. LVIII, 3). Hence, the

tower may well be of Crusader origin, part of the Crusader outer line best represented by the adjacent north-west curtain.

North-west curtain (*W-W* on plan; section in Fig. 11, facing p. 140; Pl. LIV, 1)

As it stands on the slope of the ancient bank, this curtain has loops in two stages below the parapet (section, Fig. 11), the lower stage having five loops only. Both stages are largely Mamluke work with corbelled loop-heads, but not entirely so; at the south their work meets another remnant of older construction in rubble, adjacent to that already noticed in connexion with the tower and of like height and appearance. This forms an independent corner returning south a short way in what has become the guard-room wall. At the corner itself large ancient panelled blocks are used as quoin-stones. In the curtain to the east the rubble extends as far as the first loop at either stage; and these are different from the other loops, the lower (Pl. LVIII, 4) evidently intact in its recess, the outer arch of which is of large voussoirs finished with the diagonal dressing usual in the twelfth century. Beside it are a pair of vault impost, similarly dressed and *in situ*. The whole is typical of that century in particular.¹ Blocks dressed likewise are apparently *in situ* in the lowest course or two at the front of two other recesses at this level, which for the rest have been rebuilt in Mamluke style, and beside one of these (Fig. 11) there is a pair of vault impost like those at the intact recess, of twelfth-century style. Provided for a vaulted gallery which was never built, these impost look like Crusader work, and occurring so far apart as they do, they go to show that the whole line was first erected in the twelfth century. Externally it has been refaced from the foundations upwards apart from the original rubble at the south end, occasional stones with typical Crusader masons' marks being built in at all levels; but in width and height it is uniform with that remnant of the twelfth-century line.

North-east curtain (14 on plan, Fig. 25; section in Fig. 1, p. 121; Pl. XLVIII, 1-2)

Above the Roman and Islamic work already discussed (pp. 154, 162), it is like the north-western, having a single loop at a lower level near the common angle in addition to the main upper arcade. Its parapet walk, continuous with the north-western, runs as far as the ancient base of the north-east tower. Yet again, this work of Mamluke style is built on to a remnant of older rubble work at its inner end, towards the tower base (Pl. XLVIII, 1). Resting upon the two Islamic courses at the same level as the Mamluke and extending as far as the first recess, this rubble rises almost to the top of the tower base and includes a blocked doorway (see elevation, Fig. 11). Its arch, which is of the same work as the lower, original arch of the south postern (Fig. 32, p. 183), is evidently Crusader. It belonged to an upper story which abutted both the inner sides of the tower base, on which the wall arches of the vaults are still outlined in whitewash; remains of the lower story were found on the same side of the tower (Fig. 19). That doorway from the upper story would have opened on to the parapet walk which surmounted the glacis in front of the tower base.

¹ Both in Crusader work: R. W. Hamilton, *The Structural History of the Aqsa Mosque* (London, 1949), pp. 48 ff., and in Saracenic work, *QDAP*, Vol. I, p. 26, on 'Ajlun Castle.

Glacis of north-east tower (*Q-Q* on plan, Fig. 25, p. 168; section in Fig. 1, facing p. 121; Pls. XLVII, 1 and 2, LX, 3)

Its two faces are equally in two distinct styles, the lower two-thirds in drafted stones with heavy bosses (Pl. XLVII, 2), the upper third in finely cut stones with a slightly raised panel.¹ Angle stones of the latter style which are built into the barbican wall prolonging the east side (p. 173) go to show that a second outer angle existed at the south-east; thus, the parapet walk would have returned along the south side of the tower base to a point near the present main entrance (5). The inner ditch here may contain some trace of it, but it has not been cleared. Nor at the other end is its connexion with the north-east curtain visible, owing to a later glacis built against the lower half of it.

That the main glacis stood to its present height in Crusader times, the doorway in the north-east curtain proves. But whether it is principally of that period, or older, is not known. A sounding at the foot of the north-east angle (Pl. XLVII, 2) showed that it was built into the ancient deposits, but the narrow foundation cutting produced mere scraps of glazed pottery which could be either Early Islamic or later. To judge simply from the appearance of the rugged lower masonry it could be Crusader. Moreover, the Crusaders often built towers with a spreading base like this, and as an addition to the ancient base it may perhaps be one of the 'barbicans' mentioned by contemporaries (p. 165). If so, the upper panelled work may represent the restoration of damage caused by the siege and destruction of 1239.

(*d*) *Outline of the preceding castle* (Fig. 25, p. 168, with inset).

Linking up the vestiges of earlier work that immediately preceded the Mamluke reconstruction, from *Q* round to *W* and back to *Q* again, we arrive at an outline close to the present ring-wall. But the line of the ancient city wall divided it into two parts, the outer much larger than the inner. The outer was built to a front which largely reproduced the elbow in the ancient wall, two of its towers (12, 10) lying opposite ancient towers, its north curtain nearly parallel with the ancient curtain behind; its west curtain would have run as nearly parallel with the other ancient curtain if alined on the gateway against the south-west work (at *V*) rather than on the existing line (11). No tower doubles the ancient Phasael, presumably because the city gate called 'David's Gate' stood here on the continuation of the Roman wall (14). The other part within the ancient line simply linked Phasael to the south ancient tower by a right angle. There was communication from one part to the other through the south tower on the ancient line at least; hence they could have been in use together even while the ancient line dividing them stood intact.

This was the case under the Crusader kingdom in the twelfth century. From the Crusader detail still *in situ* here and there on the two outer fronts, from the doorway beside the ancient tower base at the north-east (*Q*) round to the postern beside the connected city wall at the south (*U*), this sector must be of Crusader creation. Such an extended front can have been laid out only in the twelfth century. Its indifferent rubble construction bears little resemblance to the finished architecture of their churches and

¹ See Pl. LX, 3, at right of angle. Cf. *PEQ*, 1940, Pl. V, 2.

better-known castles of the next century, it is true; but then, it is likely to have been put in hand during the uncertain early years of the Latin kingdom, when strength was more important than style, and resources were slender.

But the outer part would not have been complete without the inner, to protect the approach to the north-east tower, the 'Tower of David', the oldest part and nucleus of the castle. The inner sector, then, must be either contemporary with the outer or older. The pre-Mamluke work which it incorporates gave us no definite clue to its date. The heavy rubble work at either end (*R*, *T*) was evidently secondary to masonry of Early Islamic style (at *T*), but on the other hand it is not unlike the Crusader remnants in the outer sector, especially on comparison of the original work in the east and north-west towers (7, 12). It suggests a period of decline such as preceded the Frankish revival of architecture towards the middle of the twelfth century; quite possibly it here represents the castle mentioned in the tenth century, which the Crusaders took over, while the same indifferent work on the outer sector belongs to their earliest extension. The better-built glacis in front of the north-east tower (*Q-Q*) may follow later, together with their more typical masonry inside the courtyard, as in the east range and in the south-west tower (10). Their reconstruction of 1229-39 is perhaps exemplified on the east front by the ashlar refacing of the re-entrant (at *S*) and of one wall on the ground floor of the east tower (7). Of the royal palace which probably adjoined the south front nearly at the present ground-level (Pl. LXIV, 1), and no doubt embodied their most characteristic work, we have no trace.

To sum up, we may conceive the development of the castle in two stages: the first a small courtyard connected with the ancient 'Tower of David' but still confined by the ancient city wall, the second a larger courtyard enveloping the front of the city wall. To regard the first as arising with the decline of Arab rule in the two centuries which preceded the Crusader invasion, and the second as the Crusaders' own extension, would agree with the historical texts as well as the archaeological evidence. At either stage it utilized the structure of the Herodian tower Phasael and the adjacent Jewish line to which it was attached, but itself embodied no Jewish structure other than that. Consequently, it should be added, any suggestion that its ring-wall incorporates the other two Herodian towers, notably Hippicus at the north-west (12), does not hold.¹

(e) *Glazed pottery of the Mamluke and Turkish periods*

Some specimens of glazed pottery from the filling which accompanied the Mamluke and Turkish building, or from cisterns and the ditch, are shown in Pls. LXII, 4-7 and LXIII, 1-10. Of special interest are the sherd of 'Atlit ware, probably of thirteenth-century Crusader origin (Pl. LXII, 4), and the pieces of the fifteenth and sixteenth centuries from Spain and Italy (Pl. LXIII, 2-4). The remainder are of Egyptian or Syrian ware (Pls. LXII, 5-6; LXIII, 1), of Turkish ware (Pl. LXIII, 9-10), or are examples of their common local imitations (Pl. LXIII, 5-8). Good stratigraphic evidence for dating the

¹ For the accepted view see G. Adam Smith, *Jerusalem* (London, 1907-8), Vol. I, p. 242; Vol. II, p. 487. For recent discussion of their situation see *PEQ*, 1944, pp. 204 ff.; 1946, pp. 26 ff. Demonstrably they are not represented by the two ancient towers within the building but must be sought outside; see above, pp. 136, 148 ff.

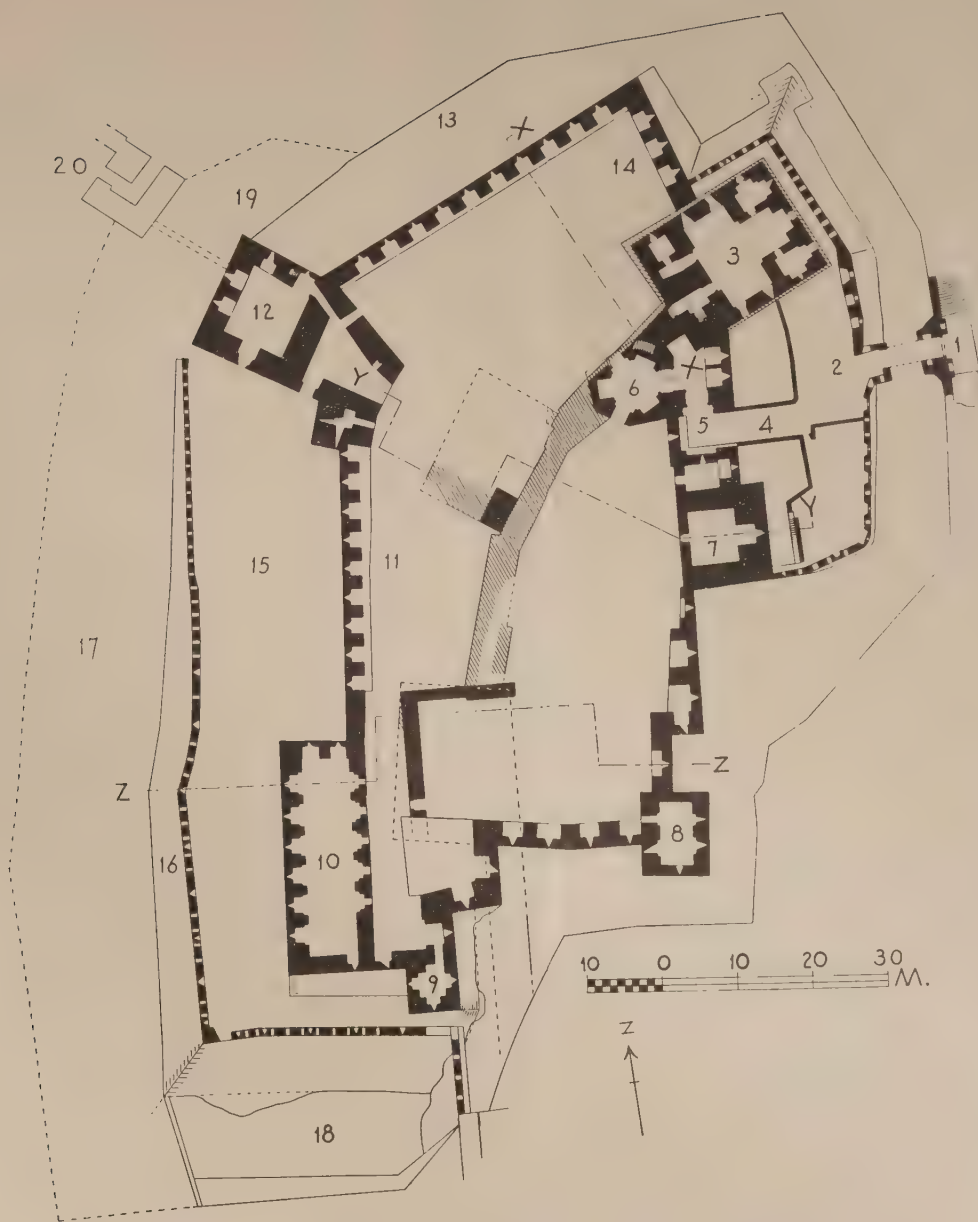


FIG. 35. The Citadel as existing, the remains of the ancient city wall notched and completed in broken outline



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pottery of the Turkish period exists in the deep deposits of the east ditch which have largely accumulated since the fifteenth century (p. 172), but no general account of this can be given here.¹

Description of Pottery in Pls. LXII, 4-7 and LXIII, 1-10

Pl. LXII, 4. Bowl fragment painted cobalt blue in black outline on white ground, thin white enamel, buff body; found with (6-7) below. As found at 'Atlit near Haifa in Palestine, at Al Mina in North Syria, and at Corinth in Greece, dated in the thirteenth century at each.²

Pl. LXII, 5. Bowl fragments painted turquoise blue and blue-black on white ground, crackled glassy glaze, sandy body; probably Egyptian or Syrian, fourteenth century.³ From close to rock floor of north ditch near north-west tower (12).

Pl. LXII, 6-7. Fragmentary bowl, base wanting, decoration and body as (5) above; from guard-room at north end of Crusader undercroft on west terrace (p. 183) at secondary level together with (4) above and late-fourteenth-century Mamluke coins.

Pl. LXIII, 1. Shallow bowl restored from fragments, crinkled rim and moulded centre, greenish lemon-yellow glaze (as if in imitation of celadon), reddish body; possibly Syrian, fourteenth century or later. From cistern in courtyard at same level as (4) and (7) below.

Pl. LXIII, 2. Fragments of plate, painted in bright cobalt blue and gilt on ivory-white ground, good clear glaze, buff body; Hispano-Moresque (Manises near Valencia), late fifteenth century. From pit in courtyard with (3) below.

Pl. LXIII, 3. Bowl fragments, thumb impressions in bowl below shoulder ridge, one to each feather or palmette, graffiato design splashed dark leaf-green and light russet-brown on cream, good glaze firing cream on slip, dark brown on buff body; North Italian, late fifteenth century. From pit with similar fragments and (2) above.

Pl. LXIII, 4. Plate restored from fragments, design of leaves painted dark green in sepia outline, central flower and tendrils orange-yellow; Italian (Montelupo), late sixteenth century. From cistern at same level as (1) above, (7) below.

Pl. LXIII, 5. Bowl restored from fragments, closely gadrooned outside rim, simple graffiato design of two concentric lozenges in centre, glazed dark leaf-green over cream slip, red body; local ware of late Mamluke or early Turkish date, found in east ditch at low level.

Pl. LXIII, 6. Deep bowl, glaze and body as preceding but plain; local ware of similar date, from filling in courtyard.

Pl. LXIII, 7. Bowl restored from fragments, painted with black bands containing dull cobalt blue flowers on black stalks, poor glassy glaze, light-red body; local imitation of Isnik ware; cf. (10) below from cistern at same level as (1) and (4) above. Typical of the early and middle Turkish levels in the ditch.

Pl. LXIII, 8. Deep bowl restored, design outlined in black with blue filling, painting, glaze, and body as preceding; from east ditch at middle Turkish level, about seventeenth to eighteenth century.

¹ I have to thank Mr. Arthur Lane for his kindness in suggesting attributions from study of the photographs. The pottery, associated coins, and records of excavation are at the Palestine Archaeological Museum.

² See respectively *QDAP*, Vol. III, pp. 137-8; A. Lane, *Archaeologia*, Vol. LXXXVII (1938), pp. 54 ff.; C. H. Morgan, *Corinth*, Vol. XI; *The Byzantine Pottery* (Cambridge, Mass., 1942), pp. 105 ff.

³ Cf. R. L. Hobson, *British Museum Guide to the Islamic Pottery of the Near East* (London, 1932), Fig. 76, Pl. XXII, and p. 65.

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Pl. LXIII, 9. Deep bowl restored, floral design outside painted in green, yellow, blue, red, and dull purple, thinly outlined in black, floral spray inside at centre similarly painted, band outside and inside rim picked out in red, green, and yellow, all on white under clear glaze, hard, siliceous, white body; Kutahya, Central Turkey; eighteenth century. From cistern in courtyard.

Pl. LXIII, 10. Neck of jug, design of scales painted in ultramarine outline and shaded with light wash of the same, dividing band of chevrons similar, with small scales of sky blue below, under thin, cloudy white glaze or enamel, buff body; Isnik near Istanbul, early sixteenth century. From east ditch at low level.

C. N. J.



1. North-east tower from the east, showing ancient base of Phasaël with top of medieval glacis in front; main entrance of the Citadel on the left (as in 1919; photo. K. A. C. Cresswell)



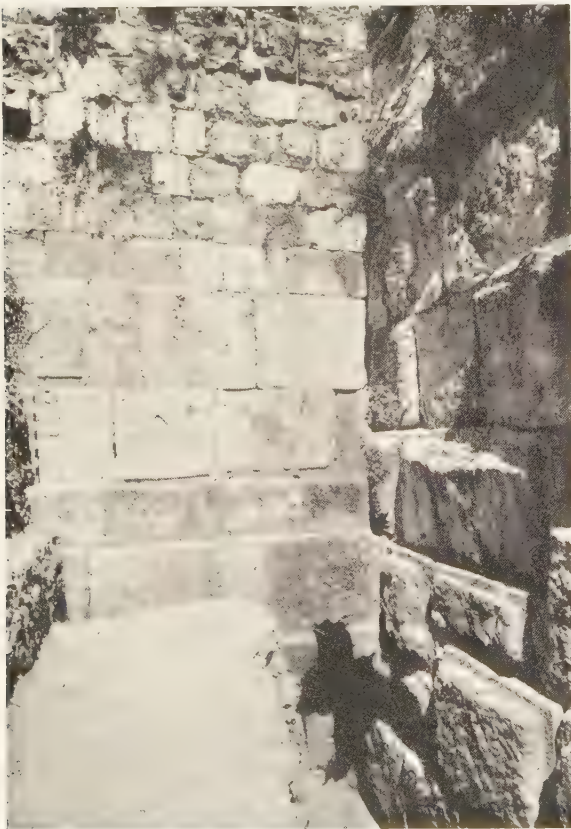
2. Foot of glacis at north-east angle



3. Masonry of ancient base, at north-east angle



1. Ancient base of north-east tower from the west, with contemporary curtain wall on right, later curtain wall on left



2. Masonry at foot of Roman wall, at left of Fig. 1



3. Masonry of tower base, showing stepped coursing



1. North ancient curtain adjacent to the base of Phasael, after removal of external revetment (see below); second build at right of arrow, third build at left



2-3. External revetment as found, looking south-east and east

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1. North ancient curtain at junction of third build with second, seen at right, partly in shadow



2. The junction lower down, third build resting on second, and second on first



3. Specimen of the first build lower down than fig. 2



1. Wall of first build at back of middle ancient tower, looking across site of tower



2. Samaria (Sabastya): masonry of early Hellenistic tower



3. Sounding at right-hand end of the above, showing infilling of tower against earlier wall behind

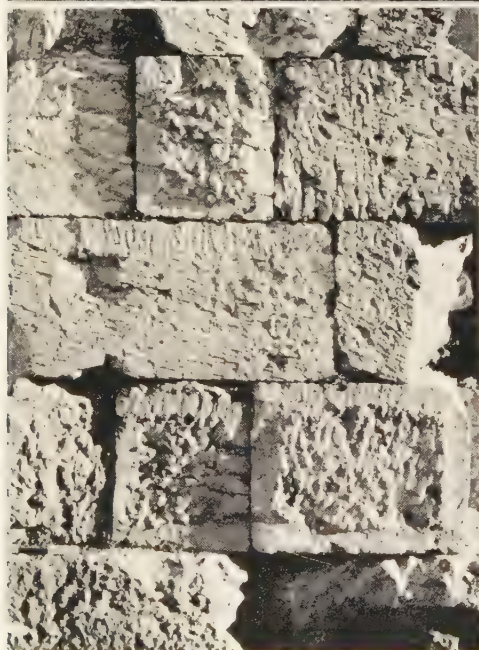


4. The same from the left or west to show blocking or infilling of later tower

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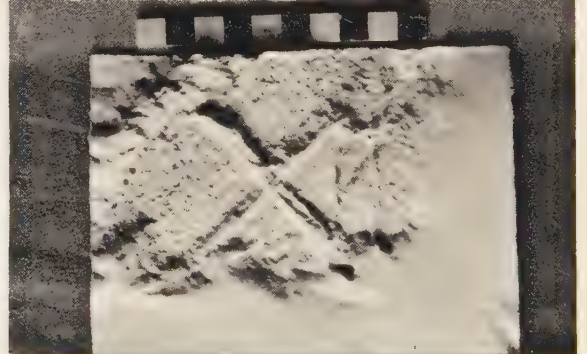
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1. Junction of second build of north curtain with side of middle tower; reveal of doorway in side of tower, right, flush with recess in curtain, left of straight joint
2. The junction lower down, end of first build of curtain at left of straight joint, with first course of second build on top
3. Detail of ashlar at reveal of doorway, fig. 1
- 4-5. Masons' marks in north curtain



1. Part of face of middle tower, looking east



2. Detail of masonry in face of tower



3. Face and south side of tower, the south-west angle marked by new masonry



4. Section of masonry in south side of tower (above rod) looking west towards corner



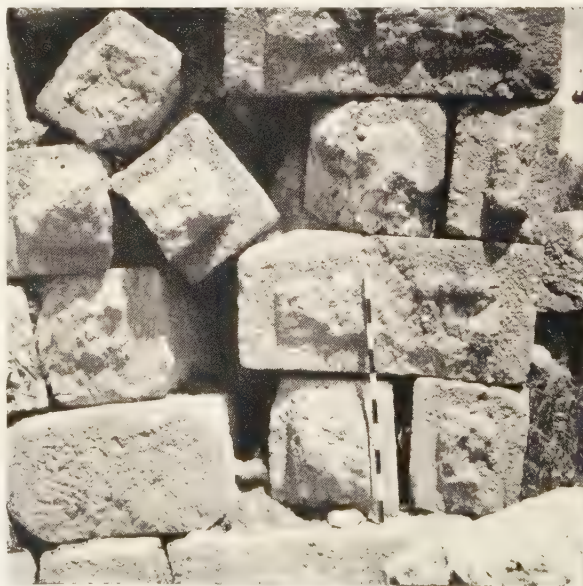
1. North curtain from the inside, showing third build



2. South curtain from the inside, showing third build superimposed on second at north end



3. South curtain, refacing towards south end, third build, courses 60 cm. high



4. Late Jewish masonry at Qarn Sartaba (? Alexandrium)



1. The courtyard looking south with side of middle ancient tower in foreground, the south curtain beyond (above arrow and beyond pathway) its front to right of isolated arch, cf. Pl. LXIV, 2



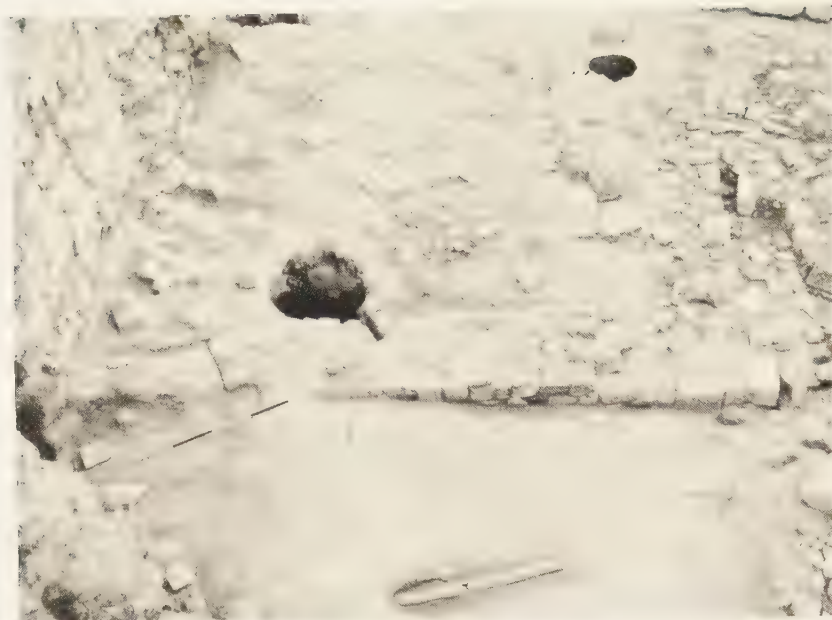
2. Detail of ancient south curtain, showing mixture of stones



3. Part of face of presumed south tower of ancient line, with blocking in front



4. Rock cutting in south fosse indicating continuation of ancient line, looking south



1. Roman foundations between ancient middle tower and existing east tower looking south; drain pipe in foreground bears stamp of Tenth Legion



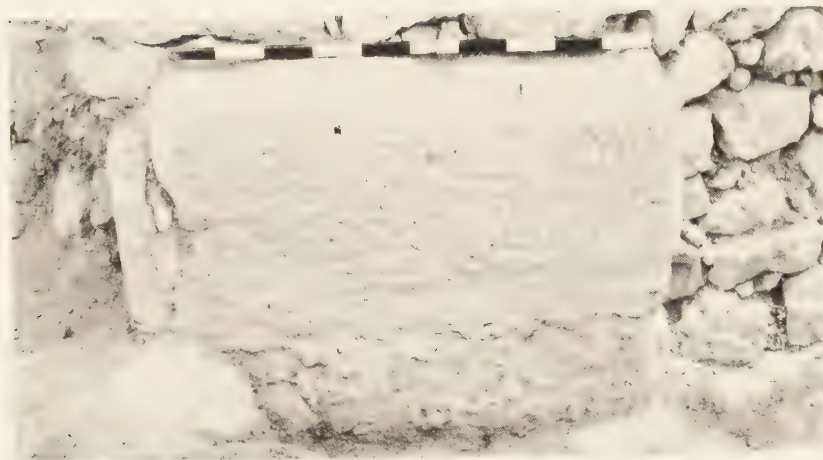
2. Segment of round tower at south end of courtyard, probably 'Umayyad, looking east

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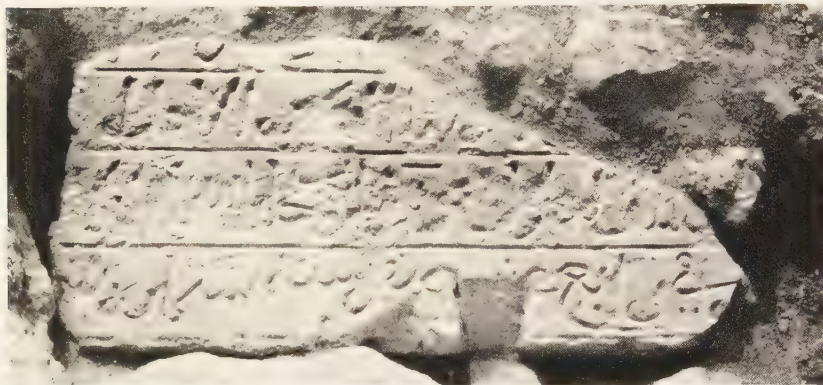


Potsherds from soundings: 1, Late Hebrew monarchy (p. 130), 2-12, Late Jewish or Herodian (p. 144), 13-22, Roman (p. 156)

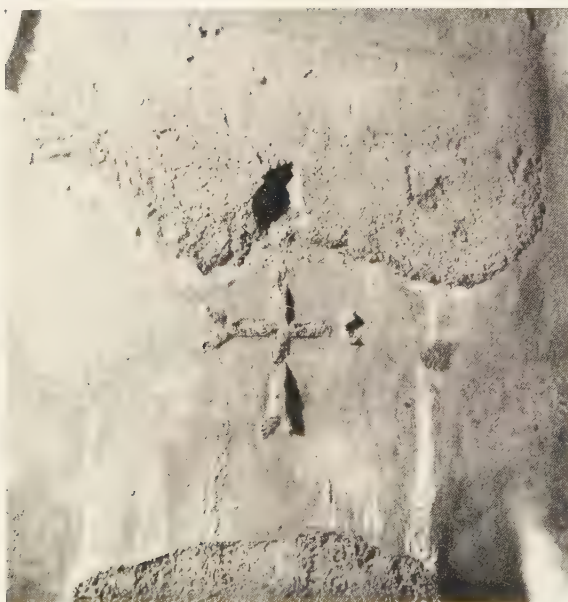
THE CITADEL, JERUSALEM



1. Inscribed stone built into party wall of Crusader range on west terrace (Pl. LIX, 2)



2. Fragmentary inscription (height 40 cm.) re-used in blocking same range for foundations of present south-west tower



3. Cistern under north-west tower; cross moulded on plaster



4. Loop-hole of 12th century in north-west curtain



1. Range of ruined vaults along south-east curtain, originally Crusader; rod at secondary level



2. Ruined Crusader vaults on west terrace, present south-west tower at left; looking south



3. Manger inside room seen in fig. 1



4. Crusader wall-respond in basement of south-west tower



1. Outer gateway



2. Main entrance; view through the open arch to the first gateway, portcullis slot on left of rod



3. Glacis in front of north-east tower, right, and, left, later barbican wall (Pl. XLVII, 1)



4. South tower showing Mamluke masonry superimposed on rougher work

PLAN OF THE CITADEL

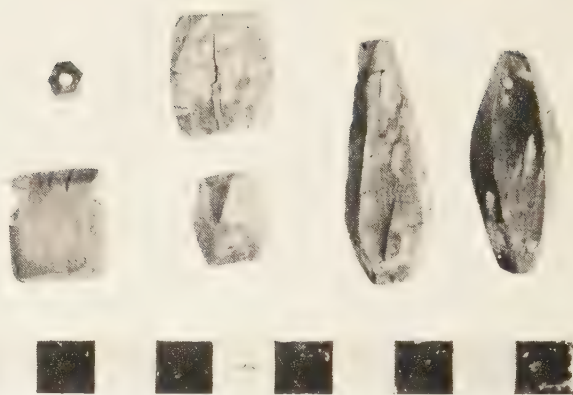
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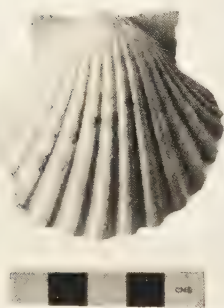
The Citadel in 1865 (from the *Ordnance Survey of Jerusalem* by Capt. C. W. Wilson, R.E., *Notes*, Pl. III)



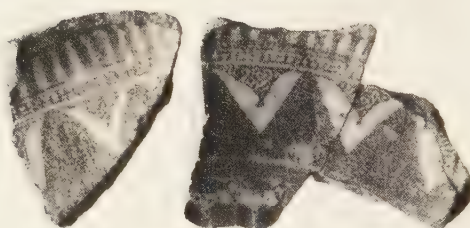
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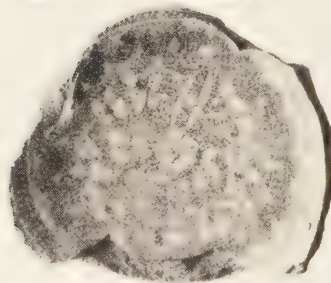
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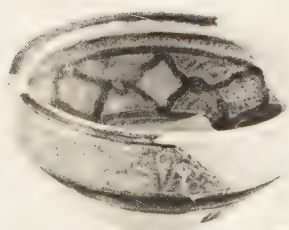
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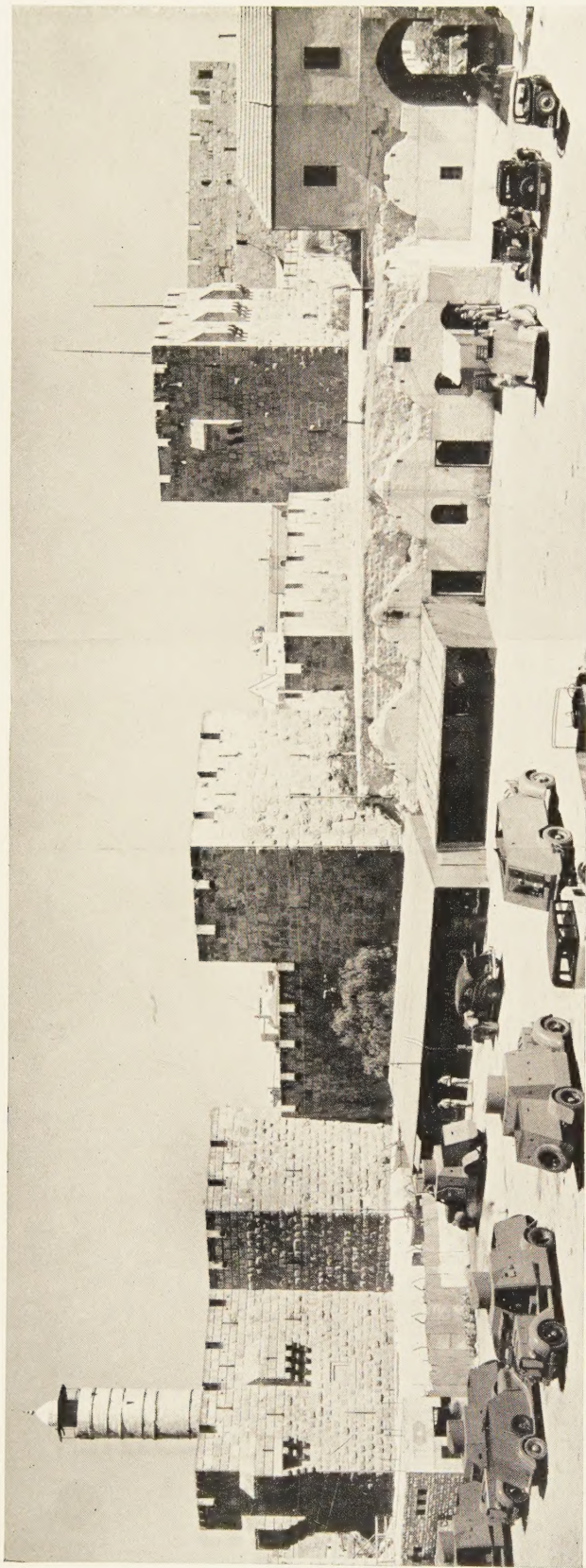
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Objects from various soundings, 10th–14th centuries (nos. 1–2, p. 161; 3, p. 162; 4–7, p. 189)
THE CITADEL, JERUSALEM

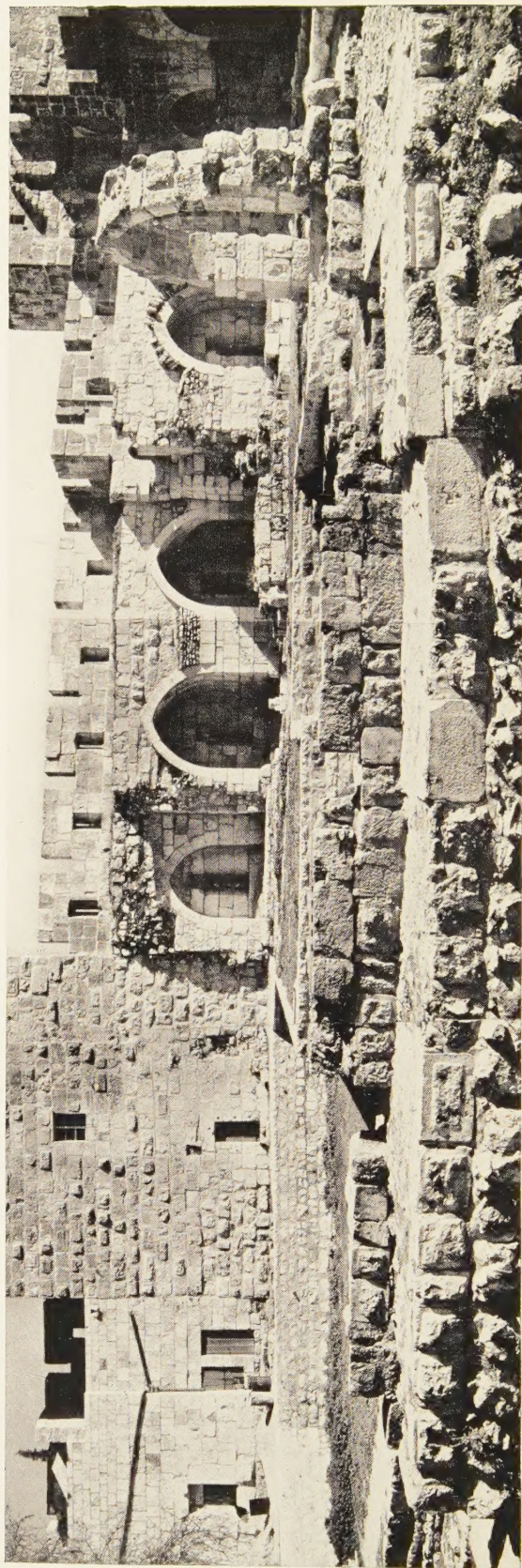


Glazed ware, 15th-18th centuries, from filling and cisterns (pp. 188-90)

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1. The Citadel from the Turkish barracks, looking north-west, the top of the north-east tower visible at far right



2. The East Curtain from the courtyard, looking east, the South-east tower at right. In foreground, the top of the south ancient curtain appears as second line of masonry (under rod)

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